

Public Health Surveillance Using Emergency Medical Service Logs — U.S.–Mexico Land Border, El Paso, Texas, 2009

In 2008, approximately 358 million travelers entered the United States, of whom 206 million arrived via land ports of entry (POEs) on the U.S.–Mexico border (1). Effective response to infectious diseases of public health importance among travelers requires timely identification and reporting to state and federal health authorities. Currently, notifications are made primarily by U.S. Customs and Border Protection (CBP) officers to CDC quarantine stations. However, CBP personnel have competing priorities and limited public health training (2). To evaluate the utility of monitoring emergency medical service (EMS) dispatch and response logs for ill travelers with symptoms or signs suggestive of infectious diseases, CDC screened medical records of patients transported by EMS during 2009 from the four POEs in El Paso, Texas. The screening was conducted using commercial software that monitors EMS logs and sends alerts in real time based on preestablished criteria (i.e., records containing keywords suggesting infectious diseases). Records that met the criteria were forwarded to El Paso Quarantine Station personnel and reviewed within 24 hours. If a reportable infectious disease was suspected, the final diagnosis was requested from the receiving hospital. This report summarizes the results of the evaluation, which found that, of 50,779 EMS responses in the city of El Paso, 455 (0.9%) records met alert criteria, 86 (0.2%) needed diagnostic confirmation, and nine (<0.1%) were for reportable infectious diseases. Monitoring EMS logs can enhance detection of travelers with serious infections at POEs but requires additional screening and follow-up by CDC.

CDC's Division of Global Migration and Quarantine (DGMQ) is responsible for responding to communicable diseases in arriving international travelers that might pose a public health threat. Effective and timely detection of travelers with reportable infectious diseases is necessary for disease prevention and control measures, such as outbreak and contact investigations (i.e., for infectious tuberculosis and many vaccine preventable diseases) and monitoring of POEs for mass disease events with bioterrorism

potential. CDC's El Paso Quarantine Station has one medical officer and one public health advisor who are responsible for responding to these public health threats at 29 POEs spread over 1,200 miles of the U.S.–Mexico border. At POEs, CBP has agreed* to report to CDC quarantine stations any traveler who might have any of a number of clinical syndromes suggestive of an infectious disease of public health importance. However, CBP officers also must screen travelers rapidly for immigration requirements, criminal histories, terrorism intent, and illicit drug trafficking, as well as public health threats, while also permitting entry of persons engaged in commerce, tourism, or other lawful pursuits (2). Because screening and reporting of health threats might be limited by CBP's broad mandate and need for rapid processing of travelers, the Institute of Medicine has suggested that new strategies be pursued to identify travelers for signs of communicable diseases (2).

Use of EMS dispatch and response and emergency department chief complaint data is an efficient way to detect conditions of clinical and public health interest (3,4). The four urban POEs that join El Paso, Texas, and Ciudad Juarez, Chihuahua, Mexico (Bridge of the Americas, Paso Del Norte, Ysleta, and Stanton) are particularly suited to such use because of the large numbers of crossings (31.5 million per year) and because the El Paso Fire Department's computer-assisted dispatch and response system

*Memorandum of understanding between the Department of Health and Human Services and the Department of Homeland Security; October 19, 2005. Additional information on relevant regulations is available at <http://www.cdc.gov/quarantine/specificalawsregulations.html>.

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integrates both 911 call center data and EMS clinical findings into a single electronic patient record.

In this study, CDC evaluated the utility of monitoring El Paso Fire Department patient records using commercial software (FirstWatch, FirstWatch Solutions Corporation, Encinitas, California) that monitors EMS records in real time and sends an alert if the record meets the following criteria: 1) EMS response to one of the four POEs and 2) at least one keyword suggesting infection.[†] When EMS records

matched these criteria, they were sent automatically by e-mail to the quarantine station medical officer, who reviewed the information in the alert (date, location of patient, chief complaint, and a brief summary of medical clinical) within 24 hours. If an infection reportable to the city of El Paso, Texas, or New Mexico health departments was considered possible, the El Paso Quarantine Station contacted the relevant hospital to obtain the final diagnosis. A final diagnosis was not requested for patients primarily transported for intentional or unintentional injuries, or for labor and obstetric conditions. These diagnoses were received within 24 hours for most patients. The primary diagnosis was then coded by CDC using the *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) (Table). To determine whether any of these patients had been reported previously to CDC by CBP, information was extracted from CDC's Quarantine and Activity Reporting System (QARS), in which all illnesses, deaths, and other port-related public health events reported to quarantine station staff members are recorded.

During 2009, El Paso EMS made 50,779 calls, of which 898 (1.8%) were to the four border crossings. Of these 898 calls, 455 (50.7%) met the alert criteria. Review of the alerts led to final diagnoses being

[†] Keywords were as follows: **Gastrointestinal group:** abdominal pain, stomach pain/ache, cramping, nausea, vomiting, diarrhea, bloody diarrhea, loose stools, decreased appetite, jaundice, botulism, cholera, *Clostridium*, cryptosporidiosis, salmonellosis, shigellosis, hepatitis A, norovirus, typhoid fever, weight loss; **Respiratory group:** influenza, tuberculosis, cough, cough with blood, sore throat, congestion, shortness of breath, breathing problems, difficulty breathing, influenza (flu), Legionnaires disease, melioidosis, pertussis, whooping cough, SARS, tularemia, anthrax; **Dermatologic group:** varicella, chickenpox, rash, redness of skin, swelling, sores, inflammation, discolorations, bumps, blisters, skin disorder, cutaneous anthrax, ulcers, hand foot mouth disease, measles, mumps, rubella, smallpox, shingles, MRSA, methicillin-resistant *Staphylococcus aureus*, *Staphylococcus*; **Systemic group:** fever, febrile, elevated temperature, warm/hot, flushed, chills, clammy, sweating, infection, yellow fever, lymphadenopathy, brucellosis; muscle ache, diphtheria, malaria; plague, psittacosis, Q-fever, muscle ache, weakness; **Central nervous group:** polio, stiff neck, headache, meningitis, meningococcal disease, rabies, encephalitides; **Hemorrhagic group:** hemorrhage, nose bleed, bleeding, bruising, mucosal bleeding, headache, red eyes, dengue.

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TABLE. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM) coding of final diagnosis for cases reported to the CDC El Paso Quarantine Station through monitoring of emergency medical service (EMS) logs and by U.S. Customs and Border Protection (CBP) officers, 2009

Primary diagnoses by ICD-9-CM	Screening of EMS logs				Reported by CBP			
	Total	Not infectious	Infectious		Total	Not infectious	Infectious*	
			Not reportable	Reportable [†]			Not reportable	Reportable [†]
Diseases of the respiratory system	22	3	14 [§]	5 [¶]	12	1	11 [§]	0
Infectious and parasitic diseases	16	0	12	4 ^{**}	5	0	3	2 ^{††}
Diseases of the circulatory system	9	9	0	0	0	0	0	0
Diseases of the digestive system	4	4	0	0	2	1	1	0
Diseases of the nervous system	4 [§]	4	0	0	2 [§]	2	0	0
Diseases of the genitourinary system	5	1	4	0	0	0	0	0
Diseases of the skin/subcutaneous tissue	2	2	0	0	0	0	0	0
Injury, poisoning, external causes	2	2	0	0	3	3	0	0
Other or unknown	22	21	1	0	3	3	0	0
All	86	46	31	9	27	10	15	2

* Based on final diagnosis by physician or on quarantine station assessment if final diagnosis by physician was not available.

[†] Reportable to local or state health departments.

[§] Includes one case reported by both CBP and screening of EMS logs.

[¶] 2009 influenza A (H1N1) (five cases).

^{**} Coccidioidomycosis, Legionnaires disease, hepatitis C, invasive *Streptococcus pneumoniae*.

^{††} Tuberculosis, Hansen disease.

requested for 86 (9.6%) patients. Reportable infectious diseases were identified in nine (10.5%) of the 86 patients, including pandemic influenza A (H1N1) (five cases), coccidioidomycosis, Legionnaires disease, and invasive *Streptococcus pneumoniae*; nonreportable infectious diseases (e.g., urinary tract infection, bronchitis, osteomyelitis) were identified in 31 (36.0%); and a noninfectious condition in 46 (53.5%) (Table). Reportable infectious diseases were clustered in the fall, coinciding with the H1N1 epidemic (Figure).

During the same period, 295 notifications in QARS involved the jurisdiction of the El Paso Quarantine Station. Of these, 27 (9.1%) were from CPB officers at the four POEs covered by El Paso EMS. Among those 27 patients, two (7.4%) had reportable infectious diseases (tuberculosis, Hansen disease), 15 (55.6%) had nonreportable infectious diseases, and 10 (37.0%) had noninfectious conditions. Only two (2.3%) of the 86 travelers for whom a final diagnosis was requested and none of the nine patients with reportable infectious diseases were reported to the El Paso Quarantine Station by CBP.

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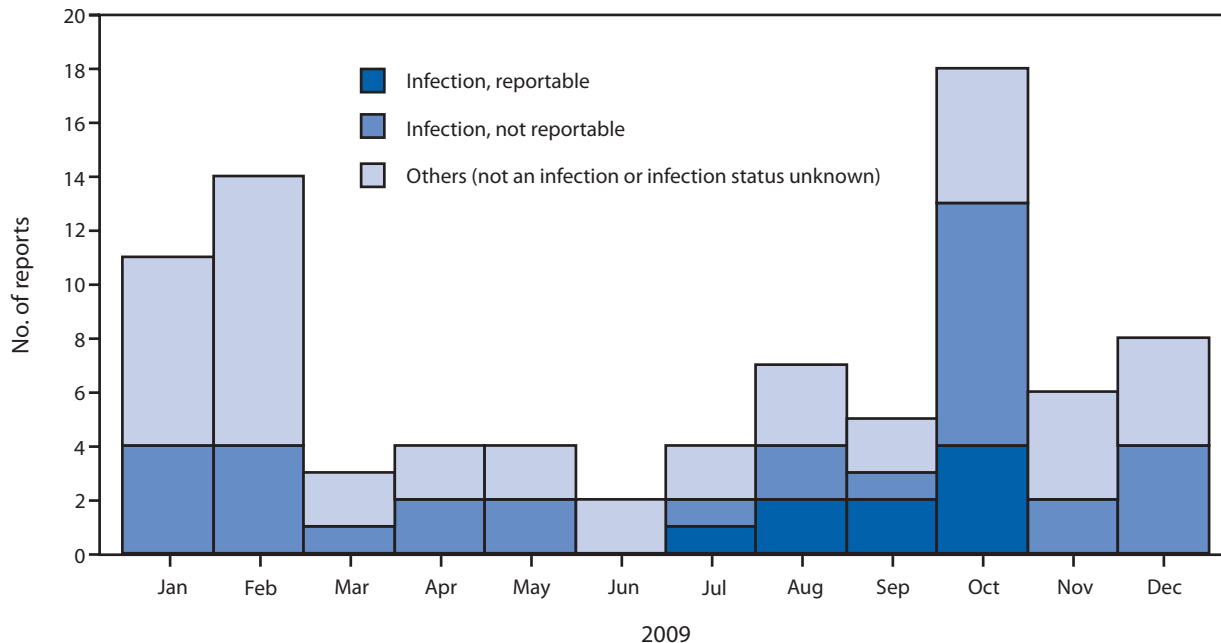
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Editorial Note

The large volume of travelers crossing at international POEs makes identification and reporting of infectious diseases difficult. The results of this analysis indicate that use of EMS dispatch and response logs more than doubled the number of reports of probable infectious diseases identified and reported from the El Paso POEs, and increased by more than fivefold (from two to 11) the number of reportable diseases identified and reported. By identifying these patients at the time they were transported, the El Paso Quarantine Station was able to contact the receiving hospital and identify suspected cases while the patients were enroute to the hospital. Reportable diseases were identified shortly after the diagnosis was made and before they were reported to other health authorities by the hospitals.

In addition to increasing the level of detection, automated monitoring of EMS response logs has the advantage of fostering interagency collaboration without relying on additional human resources. Neither EMS nor CBP personnel needed to add to their workloads to report these cases because case information was entered automatically into a computerized database and analyzed in real time, and cases of possible infectious disease were reported by e-mail to the El Paso Quarantine Station for evaluation.

Although the use of EMS data in the early detection of reportable infectious diseases has not been studied previously, EMS data have been found to be a useful means for real-time syndromic surveillance for early detection of outbreaks and specific health

FIGURE. Number of emergency medical service calls prompting alert and follow-up for possible infectious disease, by month and final diagnosis — U.S.–Mexico land border crossings, El Paso, Texas, 2009

conditions (3,4). In a study in Denmark, increased frequency of ambulance transport served to identify an influenza outbreak before it was recognized by other surveillance systems (3). In New York City, EMS diagnoses of difficulty breathing were 86.4% sensitive and 86.6% specific for cardiac disease, and 71.4% sensitive and 93.6% specific for pulmonary disease (3,4). However, implementation of syndromic surveillance systems should be weighed carefully against their potential public health utility (5) and cost to public health agencies.

In spite of the rapid identification of a number of reportable infectious diseases through surveillance of EMS logs, the number of cases identified was small and most did not require an immediate public health response. CBP did not report the majority of cases transported by EMS. This might be expected, given the relatively brief period available to CBP for detection of ill travelers as they transit through ports of entry. Although CBP officers are trained to identify and report travelers who appear ill with syndromic conditions such as those included in this study, most of the clinical information was not collected until the patients were evaluated by EMS. Unless the illness is plainly visible and unambiguous, or travelers indicate that they are ill, in most cases CBP cannot detect illnesses of public health significance at the border. For travelers with medical emergencies,

the focus is always on prompt transport of patients who require immediate medical care.

This study also highlights the difficulty of detecting infectious diseases at the time infected travelers enter the United States (6–9). The large expanse of U.S. national borders, large number of crossings, limited federal resources, and need to allow the rapid movement of people and cargo make binational surveillance systems essential. Since 1997, CDC, the Mexican Secretariat of Health, and border health officials have implemented a variety of surveillance systems for infectious diseases as part of the Border Infectious Disease Surveillance (BIDS) project (8). One such sentinel influenza surveillance site in Imperial County, California, near the U.S.–Mexico border, was responsible for detecting one of the first two cases of 2009 influenza A (H1N1) (10).

The findings in this report are subject to at least three limitations. First, the reported number of patients detected with an infectious disease likely greatly underestimates the true number of imported infections, because generally only those illnesses that pose immediate threats to life required transport by EMS. Second, when such patients are transported, EMS personnel do not measure body temperatures routinely to screen for fever, a crucial first step in nearly every infectious disease syndromic algorithm, and confirmation of most reportable diseases requires diagnostic tests not usually

What is already known on this topic?

U.S. Customs and Border Protection (CBP) officers, whose primary task is law enforcement, also watch for and report illnesses of public health importance among approximately 206 million travelers who enter the United States across U.S.–Mexico land border each year.

What is added by this report?

The El Paso Quarantine Station used a real-time commercial software system that monitors emergency medical service (EMS) logs to identify possible infectious diseases reportable to local and state health authorities. Nine patients crossing the border with reportable diseases were detected; none had been reported to the El Paso Quarantine Station by CBP officers.

What are the implications for public health practice?

Although automated monitoring of EMS logs can enhance detection of reportable infectious diseases in travelers, the yield is low and substantial additional screening and follow-up is needed by CDC.

available on ambulances. Finally, surveillance systems based on symptoms and signs of illness cannot detect asymptomatic infections, nor most infectious diseases with protean symptoms.

The results of this study suggest that automated surveillance of EMS logs can enhance detection of reportable infections at POEs and supplement existing public health surveillance. To determine the ultimate value of this system, longer periods of study and refinement of the keyword search strategy based on performance characteristics are needed to determine whether travelers with conditions of greater importance to public health can be detected by this system. Surveillance based on EMS logs is only one component of a system that must include binational cooperation, data sharing, notification, reporting, continuity of care, and preparedness. Systems to detect infectious disease in immigrants and refugees before international travel begins or after it is completed also are an essential part of surveillance. This is especially important given the modest value of interventions at POEs and the limitations of detecting ill travelers en route.

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Dengue Fever Among U.S. Travelers Returning from the Dominican Republic — Minnesota and Iowa, 2008

In February 2008, a group of U.S. residents became ill with symptoms and clinical findings suggestive of dengue fever after returning from the Dominican Republic, where they had traveled to work as missionaries. Dengue is endemic in the Dominican Republic and most tropical and subtropical areas of the world, including the Caribbean, and represents a known health risk for U.S. residents traveling to or working in those areas (1,2). Subsequent investigation by the Minnesota Department of Health (MDH), the Iowa Department of Public Health (IDPH), and CDC determined that at least 14 (42%) of 33 missionaries traveling to the Dominican Republic met the case definition for dengue fever, and 12 had cases that were confirmed serologically. Of the 13 patients interviewed, all had weakness and fever, with 12 reporting chills and body or joint pain. Ten patients had noticed mosquitoes inside or outside their house in the Dominican Republic, but only three had used repellent. Before departing on their trip, none of the 13 ill travelers interviewed had been aware of dengue in the Dominican Republic, and only two had sought pre-travel medical advice. The Dominican Republic is a frequent destination for U.S. travelers providing missionary and humanitarian services and also for vacationers. These cases indicate a need to increase awareness of dengue prevention measures among U.S. travelers to areas where they might be at risk for dengue.

In April 2008, CDC identified a cluster of blood specimens with positive dengue-specific immunoglobulin M (IgM) antibodies among samples that had been sent to the CDC laboratory by IDPH for testing. Follow-up by IDPH determined that the positive results came from a group of U.S. residents who had traveled to the Dominican Republic, where they worked as missionaries. Through interviews with patients, IDPH noted that several other persons in the group, including persons from Minnesota, had become ill after returning to the United States. IDPH alerted MDH to the potential cluster, and the two state health departments identified additional dengue cases from test results received from commercial laboratories and through additional interviews. MDH, IDPH, and CDC launched an investigation to determine possible factors that might have placed the missionaries at risk for dengue infection.

Investigators determined that, during February 5–18, 2008, a group of 33 missionaries from Minnesota and Iowa traveled to the Dominican Republic to assist with reconstruction related to damage after tropical storm Olga, which struck the country in December 2007. The 33 missionaries each stayed approximately 1 week in a tropical-style house in urban Santiago. The house had potable water, fans, and some window screens, but no air conditioners. During the day, the group participated in construction activities in mostly urban areas; members spent evenings on an open porch at their house. After returning to the United States, at least 14 (42%) of the missionaries sought health care for nonspecific febrile illness.

For this investigation, a case of dengue was defined as illness in a person with fever and two or more of the following symptoms: headache, retro-orbital pain, myalgia, arthralgia, rash, or hemorrhagic manifestations, plus 1) a specimen with a positive dengue IgM antibody revealed by an enzyme-linked immunosorbent assay (ELISA) test or 2) no dengue-specific laboratory testing but a similar mosquito exposure pattern as a person with a positive laboratory dengue test result.

In May 2008, investigators attempted to contact all 33 missionaries in the group, but were only able to identify those who had positive dengue test results or reported symptoms consistent with dengue infection. A trip coordinator refused to release the names of the other travelers, citing confidentiality issues, and attempts to have the identified patients relay interview requests to other travelers failed. Of 14 persons whose illness met the dengue case definition, 13 agreed to be interviewed regarding demographic information, travel history, activities, and behaviors, and to respond to questions regarding prevention measures and pre-travel knowledge of the risk for dengue fever.

Of the 14 patients whose illness met the dengue case definition, 12 had positive dengue IgM antibody test results, and two had similar illness and exposures but no laboratory testing. Of the 13 patients interviewed, the mean duration of stay in the Dominican Republic was 7.6 days (range: 6–9 days). Median age was 53 years (range: 12–76 years). Eight patients were male. All 13 had weakness and fever, and 12 reported chills and body or joint pain. Six patients had

abdominal pain, five had some form of bleeding, four had nausea or vomiting, and three had diarrhea. Two patients were hospitalized, and five reported being out of work from 6 days to 1 month. The mean incubation period was 7.6 days (range: 1–23 days).

Eleven of the 13 patients reported wearing long pants during the workday, primarily to avoid work-related injuries and sunburn. However, none of the patients reported wearing long pants in the evening. All reported opening window screens and doors in their house to increase air flow, and eight noted the presence of mosquitoes inside their bedrooms. Despite having mosquito repellent available in the group supplies, only three persons used repellent. None of the patients used insecticides to treat their clothing or bedding; none used bed nets, recommended for general biting arthropod protection. None of the 13 thought mosquitoes posed a threat to their health, and none were aware of the threat of dengue from mosquitoes in the Dominican Republic. Only three of those interviewed had heard of dengue previously.

Before traveling, none of the 13 patients accessed online travelers' health information or investigated health issues relevant to the Dominican Republic. None learned of dengue risk from trip coordinators or residents of the Dominican Republic. Only two patients visited a health-care provider or travel clinic before travel, and neither was provided with information on dengue. One patient did receive information about malaria, mosquito repellent use, and protective clothing; she used repellent after being prompted by mosquito bites while in the Dominican Republic.

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Editorial Note

In this case series, at least 14 persons (42%) developed dengue fever in a group of 33 U.S. travelers while performing missionary activities in a dengue-endemic country for approximately 1 week. Similar dengue case series have been reported previously in the Caribbean. For example, in 1995, 22 (69%) of 32 aid workers involved in reconstruction and teaching activities for <20 days on Tortola, British Virgin

Islands, developed dengue (3). In 1997, at least eight (16%) of 50 missionaries were infected during a 1-week service trip to Mexico's Yucatan Peninsula (4). Similar case clusters likely will be reported in the future; dengue became a nationally notifiable disease in the United States in 2010.

Missionaries and other relief workers often travel to areas where dengue is endemic to assist in aid and recovery efforts. These groups are at particular risk for dengue infection because they work outdoors and stay in lodgings without screens and air conditioning (3,4). Repeated travel to dengue-endemic areas might increase the likelihood for reinfection with dengue and, therefore, increase the risk for severe dengue illness (e.g., dengue hemorrhagic fever) (5). As noted in a similar study (3), most of the missionaries and aid workers did not use recommended measures to prevent mosquito bites, despite mosquito infestation where they worked and slept.

In 2007, the Dominican Republic reported nearly 10,000 clinical cases of dengue.* Despite this, none of the 13 missionaries interviewed were informed of the risk for dengue before their trip. Only two of the 13 sought pre-travel health information. In response to this issue, CDC currently is working to develop partnerships to improve outreach to missionary and aid organizations active in dengue-endemic regions regarding the risk for dengue and the appropriate prevention measures (3,6–8). Efforts will include development of targeted messages and educational materials to be distributed within aid organizations. Opportunities to work with missionary and aid groups directly, as well as with Internet-based travel agencies, travel magazines, and adventure-travel clothing retailers are being explored as ways to alert travelers regarding the relationship between mosquito bites and dengue and to encourage routine use of personal protection measures such as mosquito repellent, protective clothing, and appropriate insecticide, especially when window screens and air conditioning are unavailable (8).

The findings in this report are subject to at least one limitation. Only 13 of the 33 missionaries could be contacted for interviews, and only 12 were tested for dengue. Therefore, a cohort study could not be conducted, and an attack rate could not be calculated. Because many dengue infections are asymptomatic or cause nonspecific febrile symptoms (9), additional infections might have occurred among the 33 that were not reported by the person or identified by a health-care provider.

* Available at <http://www.paho.org/english/ad/dpc/cd/dengue-cases-2007.htm>.

What is already known on this topic?

Dengue is endemic in the Dominican Republic and most tropical and subtropical areas of the world and represents a known health risk for U.S. residents traveling to or working in those areas.

What is added by this report?

At least 14 of 33 missionaries who traveled to the Dominican Republic in 2008 became ill with dengue; of 13 who were interviewed, eight reported mosquitoes in their bedrooms, but only three used repellent, and none of the 13 considered mosquitoes a health threat.

What are the implications for public health practice?

Increased efforts should be made to coordinate with dengue-endemic countries to improve prevention and control efforts as well as to explain the risk for dengue and appropriate prevention measures to U.S. travelers, particularly missionary and other aid organizations that visit areas where dengue is endemic and whose activities might put them at risk for contact with mosquitoes.

Dengue is a major public health problem in tropical and subtropical areas of the world, with an estimated 50–100 million dengue infections and 20,000 deaths occurring annually (2). One of the most important mosquito-borne diseases among international travelers, dengue accounts for 21 of 1,000 illnesses experienced annually by travelers worldwide and 32 of 1,000 illnesses in travelers to the Caribbean (7). As seen with the 2009–2010 autochthonous dengue transmission in Key West, Florida, competent mosquito vectors are present in the United States, where conditions can allow for sizeable local outbreaks (10). Viremic returning travelers present

an ongoing risk for reintroduction of dengue viruses to the U.S. mainland. Public health efforts to control *Aedes aegypti*, the primary mosquito vector for dengue, have not been completely effective (4,8). Currently, no vaccine exists to prevent dengue. However, multiple dengue vaccine candidates are being tested in clinical trials around the world that promise a better future in dengue prevention.

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Preliminary Results: Surveillance for Guillain-Barré Syndrome After Receipt of Influenza A (H1N1) 2009 Monovalent Vaccine — United States, 2009–2010

On June 2, this report was posted as an MMWR Early Release on the MMWR website (<http://www.cdc.gov/mmwr>).

Guillain-Barré syndrome (GBS) is an uncommon peripheral neuropathy causing paralysis and in severe cases respiratory failure and death. GBS often follows an antecedent gastrointestinal or upper respiratory illness but, in rare cases, can follow vaccination. In 1976, vaccination against a novel swine-origin influenza A (H1N1) virus was associated with a statistically significant increased risk for GBS in the 42 days after vaccination (approximately 10 excess cases per 1 million vaccinations), a consideration in halting the vaccination program in the context of limited influenza virus transmission (*1*). To monitor influenza A (H1N1) 2009 monovalent vaccine safety, several federal surveillance systems, including CDC's Emerging Infections Program (EIP), are being used. In October 2009, EIP began active surveillance to assess the risk for GBS after 2009 H1N1 vaccination. Preliminary results from an analysis in EIP comparing GBS patients hospitalized through March 31, 2010, who did and did not receive 2009 H1N1 vaccination showed an estimated age-adjusted rate ratio of 1.77 (GBS incidence of 1.92 per 100,000 person-years among vaccinated persons and 1.21 per 100,000 person-years among unvaccinated persons). If end-of-surveillance analysis confirms this finding, this would correspond to 0.8 excess cases of GBS per 1 million vaccinations, similar to that found in seasonal influenza vaccines (*2,3*). No other federal system to date has detected a statistically significant association between GBS and 2009 H1N1 vaccination. Surveillance and further analyses are ongoing. The 2009 H1N1 vaccine safety profile is similar to that for seasonal influenza vaccines, which have an excellent safety record. Vaccination remains the most effective method to prevent serious illness and death from 2009 H1N1 influenza infection; illness from the 2009 H1N1 influenza virus has been associated with a hospitalization rate of 222 per 1 million and a death rate of 9.7 per 1 million population.

*Information available at http://www.flu.gov/professional/federal/monitor_immunization_safety.html.

In addition to existing surveillance systems that routinely monitor vaccine safety in U.S. vaccine recipients, new systems were added in the fall of 2009.* The 2009–10 influenza vaccine safety network consists of the following systems: Vaccine Adverse Event Reporting System (VAERS), Real Time Immunization Monitoring Systems (RTIMS), Vaccine Safety Datalink (VSD), Department of Defense (DoD) Defense Medical Surveillance System (DMSS), Post-Licensure Rapid Immunization Safety Monitoring (PRISM), Indian Health Service (IHS), Department of Veteran Affairs (VA), Centers for Medicaid and Medicare Services (CMS), and CDC's EIP. This report discusses preliminary analyses from EIP.

EIP, an established collaboration among CDC, state health departments, and academic centers in 10 states, initiated a population-based, active surveillance program designed to provide rapid case identification and assessment of risk for GBS following 2009 H1N1 vaccination.† EIP has covered approximately 45 million residents in 10 specifically defined catchment areas of the United States (the states of Connecticut, Maryland, Minnesota, New Mexico, and Tennessee, the state of New York excluding Manhattan, and selected metropolitan counties in California, Colorado, Georgia, and Oregon). Cases of GBS with hospital admission after September 30, 2009, were actively sought through newly established, predominantly neurologist networks and review of hospital administrative discharge data (ICD-9 code 357.0) for all catchment hospitals (nearly all GBS patients are hospitalized). Trained surveillance officers reviewed medical charts to confirm the diagnosis and obtain data on antecedent illnesses, vaccinations, and clinical outcomes; primary-care physicians provided further details about vaccination status when possible. Potential cases were classified by surveillance officers, sometimes in consultation with neurologists, using the Brighton Collaboration case criteria for GBS.§ Cases meeting Brighton Levels 1 and 2 were considered

†Information available at <http://www.cdc.gov/ncpcid/deiss/eip/index.html>.

§Case definitions and guidelines available at <http://www.brightoncollaboration.org/internet/en/index.html>.

confirmed GBS cases, and cases that met Brighton Level 3 were considered probable. Each patient meeting Brighton Levels 1, 2, or 3 was contacted for a telephone interview to gather further information about medical and vaccination history.

GBS incidence was calculated and compared for the vaccinated and unvaccinated populations, which were estimated by age group, using data from CDC's Behavioral Risk Factor Surveillance System (BRFSS) and National 2009 H1N1 Flu Survey (NHFS) telephone survey data for the counties in the EIP catchment areas, using methods published previously (4). The total person-time of follow-up was calculated by multiplying the population under surveillance by the number of days since the start of surveillance, October 1, 2009. Person-time at risk for GBS in the vaccinated population was calculated by multiplying the number of vaccinees by 42 days (or the number of days from vaccination to the end of the surveillance period if <42 days) (1). Children aged 6 months–9 years who received a second dose of 2009 H1N1 vaccine were presumed to have received it 28 days after the first dose, as recommended by the Advisory Committee on Immunization Practices,† giving them an additional 28 days of person-time at risk. To calculate the corresponding person-time in the unvaccinated population, the person time at risk for GBS was summed among the vaccinated population and then subtracted from the total person-time of follow-up under surveillance.

Incidence among the vaccinated population was calculated by dividing the number of GBS cases vaccinated within the risk window by the total amount of person-time at risk following vaccination. Incidence among the unvaccinated population was calculated by dividing the number of GBS cases unexposed to vaccine or exposed to vaccine outside the risk window by the total amount of person-time unexposed to 2009 H1N1 vaccine. Bootstrapping methods were used to estimate 95% confidence intervals (CIs) for the rate ratios that incorporated the variance of vaccine coverage estimates (5). A Poisson distribution was assumed for the occurrence of cases and a normal distribution for the vaccine coverage estimates; the Mantel-Haenszel method was used for age-adjusted CIs. A temporal scan statistic was used to assess for any significant clustering in the interval between vaccination and illness onset in vaccinated cases (6).

† Recommendations available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5839a3.htm>.

During October 1, 2009–May 10, 2010, a total of 529 reports of potential GBS were identified by EIP, of which 326 met the GBS case criteria. Of the 326 persons with GBS, 27 had documentation of 2009 H1N1 vaccination in the 42 days preceding illness onset, 274 did not receive vaccine, and the vaccine status of 25 was either unknown (six) or pending ascertainment (19) (Table 1). Sixteen of the 27 (59%) with documentation of 2009 H1N1 vaccination also reported antecedent illness symptoms in the 42 days before GBS onset; 78% of unvaccinated persons with GBS (215 of 274) reported antecedent symptoms ($p=0.04$). No clustering among vaccinated persons was observed in the period between vaccination and illness onset ($p=0.54$). Among the 27 GBS patients with 2009 H1N1 vaccination, four required ventilator support, and one remained hospitalized 30 days after GBS onset; among the 274 GBS patients who did not receive 2009 H1N1 vaccination, 37 (14%) required ventilator support, and 34 (12%) remained hospitalized after 30 days. Eight (2%) of the 326 GBS patients died (from any cause); none of the eight had received the 2009 H1N1 vaccine within 42 days of illness onset.

Among patients hospitalized through March 31, 2010, comparison of the incidence of GBS among those who received 2009 H1N1 vaccine and those who did not receive the vaccine revealed an age-adjusted rate ratio of 1.77 (CI = 1.12–2.56) (Table 2). If this preliminary rate ratio is confirmed in end-of-surveillance analyses, the attributable rate of GBS would be 0.71 per 100,000 person-years, corresponding to an attributable risk of 0.8 excess cases of GBS per 1 million vaccinations.**

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** The number of excess cases per 1 million vaccinations was calculated as the number of excess cases (i.e., attributable rate multiplied by person time-at-risk among the vaccinated population) divided by the number of vaccinations administered.

TABLE 1. Preliminary data regarding 2009 H1N1 vaccination status of persons with confirmed or probable Guillain-Barré syndrome, by case status, age group, and sex — Emerging Infections Program, United States, October 1, 2009–May 10, 2010*

Characteristic	Documented receipt of monovalent 2009 H1N1 vaccine in the 42 days preceding illness onset							
	Yes		No		Unknown or under investigation		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Case status								
Confirmed (Brighton Level 1 and 2)	25	(93)	224	(82)	22	(88)	271	(83)
Probable (Brighton Level 3)	2	(7)	50	(18)	3	(12)	22	(17)
Age group (yrs)								
≤24	6	(22)	40	(15)	5	(20)	51	(16)
25–49	9	(33)	84	(31)	3	(12)	96	(29)
50–64	7	(26)	81	(30)	7	(28)	95	(29)
≥65	5	(19)	69	(25)	10	(40)	84	(26)
Sex								
Male	15	(56)	146	(53)	13	(52)	174	(53)
Female	12	(44)	128	(47)	12	(48)	152	(47)
Total	27	(100)	274	(100)	25	(100)	326	(100)

* Reported by May 10, 2010.

TABLE 2. Preliminary incidence rates* and rate ratios for persons with confirmed or probable Guillain-Barré syndrome, by 2009 H1N1 vaccination status and age group — Emerging Infections Program, United States, October 1, 2009–March 31, 2010†

Age group (yrs)	Vaccination coverage [§]	Documented receipt of monovalent 2009 H1N1 vaccine in the 42 days preceding illness onset						Rate ratio (95% CI) [¶]
		Yes			No			
		No.	Person-years	Rate	No.	Person-years	Rate	
≤24	32.5%	6	643,310	0.93	37	6,801,172	0.54	1.71 (0.40–3.61)
≥25	23.0%	21	763,496	2.75	216	14,024,546	1.54	1.79 (1.08–2.68)
Total	26.1%	27	1,406,806	1.92	253	20,825,718	1.21	1.77 (1.12–2.56)**

* Per 100,000 person-years.

† Hospitalization as of March 31, 2010, reported as of May 10, 2010.

§ Vaccination coverage for persons with reported vaccination during October 2009–March 2010 who were interviewed during November 2009–April 24, 2010 (National 2009 H1N1 Flu Survey [NHFS]) or November 2009–April 25, 2010 (Behavioral Risk Factor Surveillance System [BRFSS]), using combined estimates from BRFSS and NHFS with Kaplan-Meier survival analysis procedure. Included in person-year estimates were second doses (22.9%, 95% CI = 18.7–27.1) for children aged 6 months–9 years.

¶ Confidence interval.

** Age adjusted total rate ratio and 95% CI.

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Editorial Note

This preliminary analysis showed an elevated, statistically significant association between 2009 H1N1 vaccination and GBS. If confirmed, the excess risk for GBS associated with 2009 H1N1 vaccine of 0.8 cases per 1 million vaccinations would be comparable to the

excess described previously for some trivalent seasonal influenza vaccine formulations (approximately one excess case per 1 million vaccinations) (2,3), and much smaller than the risk for GBS observed during the 1976 swine influenza vaccine campaign (approximately 10 excess cases per 1 million vaccinations) (1). Notably, the high proportion of antecedent illnesses associated with GBS (e.g., gastrointestinal illness or respiratory infection) suggests that a number of the GBS illnesses observed after vaccination might be attributable to other antecedent illness; historically, 40%–70% of GBS patients report experiencing an antecedent infectious illness (7). Also, data demonstrating an association between GBS and the 1976 swine flu vaccines described a clustering of cases during the second and third weeks following vaccination (1). Similarly, a single study of seasonal influenza vaccine and GBS risk using

What is known on this topic?

Guillain-Barré syndrome (GBS) is an uncommon peripheral nerve disorder that, in rare cases, can follow vaccination; theoretic concern existed that an increased risk for GBS might occur after vaccination against 2009 pandemic influenza A (H1N1).

What is added by this report?

Preliminary findings from population-based, active surveillance for GBS in CDC's Emerging Infections Program indicate that, if confirmed by end-of-surveillance analysis, the rate of GBS following 2009 H1N1 vaccination receipt is less than one excess GBS case per 1 million vaccinations, similar to the rate following receipt of some formulations of seasonal influenza vaccines.

What are the implications for public health practice?

The incidence of GBS following 2009 H1N1 vaccination is very low, and the benefits of getting influenza vaccines outweigh the risk for GBS; vaccination remains the most important step in preventing serious illness and death from 2009 H1N1 influenza.

combined data from 1992–93 and 1993–94 seasonal influenza vaccine formulations showed GBS cases peaked at 2 weeks following vaccination (2), whereas the EIP data did not demonstrate this same clustering effect for the 2009 H1N1 vaccine.

Safety monitoring is an integral part of any vaccination program. The federal government is using several other systems to monitor 2009 H1N1 vaccine safety, including programs to detect potential associations between GBS and the vaccine. These systems differ in the size of the population under surveillance, methods to identify and verify GBS cases, and methods to determine the vaccine status of persons with and without GBS. Interpreted collectively, these systems provide a comprehensive picture of vaccine safety. Preliminary safety data from VAERS (8) indicate that the safety profile of 2009 H1N1 vaccines is similar to the profile for seasonal influenza vaccines, which have an excellent safety record. To date, VSD, PRISM, DoD/DMSS, VA, and CMS have not detected any statistically significant associations between GBS and receipt of influenza A (H1N1) 2009 monovalent vaccine, although some of these systems (DoD, VA, VSD) have found a non-significant but slightly elevated relative risk (C. Vellozzi, CDC, personal communication, 2010).^{††}

^{††} Additional information available at <http://www.hhs.gov/nvpo/nvac/reports/index.html>.

The findings in this preliminary report are subject to at least five limitations. First, misclassification of some cases might have occurred, particularly in younger patients where the diagnosis of GBS can be difficult, which might result in an underestimate of GBS cases; however, such an underestimate could bias the rate ratio in either direction. Second, some inaccurate reporting of the date of vaccination might have occurred, potentially resulting in an overestimate or underestimate of cases within the risk window. Third, the rate ratio relies on vaccination coverage estimates using BFRSS and NHFS data; based on work from previous seasons studying seasonal influenza vaccine, 2009 H1N1 vaccination coverage estimates might be overestimated by as much as two or three percentage points (9), which might produce an underestimate of the rate ratio. Fourth, incomplete case ascertainment or reporting bias might have occurred. However, these likely would have had a minimal effect because active case finding was conducted throughout the surveillance period. Finally, none of the vaccine monitoring systems currently in use, including EIP, can fully account for other confounding risk factors for GBS that might not be measured or accounted for but might be associated with vaccination decisions by patients or providers; thus, the association described above cannot prove a causal relationship between vaccination and GBS.

Further data collection and analyses of information from EIP and other surveillance systems are ongoing; a final analysis of the EIP data, including a self-controlled case series (10) that can control for some of the confounding that might exist when comparing vaccinated to unvaccinated persons, is expected to be available in early fall 2010. Persons with a history of GBS should discuss potential risks and benefits with their health-care providers before receiving any influenza vaccine. However, risk assessment should take into account that influenza and influenza-like illnesses are associated with significant morbidity and mortality, including a hospitalization rate of 222 per 1 million population and a death rate of 9.7 per 1 million population for H1N1-associated illness, as well as possible increased risk for GBS (11).^{§§} Vaccination remains the most effective method to prevent serious illness and death from influenza infection.

^{§§} Information available at http://www.cdc.gov/h1n1flu/hosp_deaths_ahdra.htm.

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Notifiable Diseases and Mortality Tables

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending May 29, 2010 (21st week)*

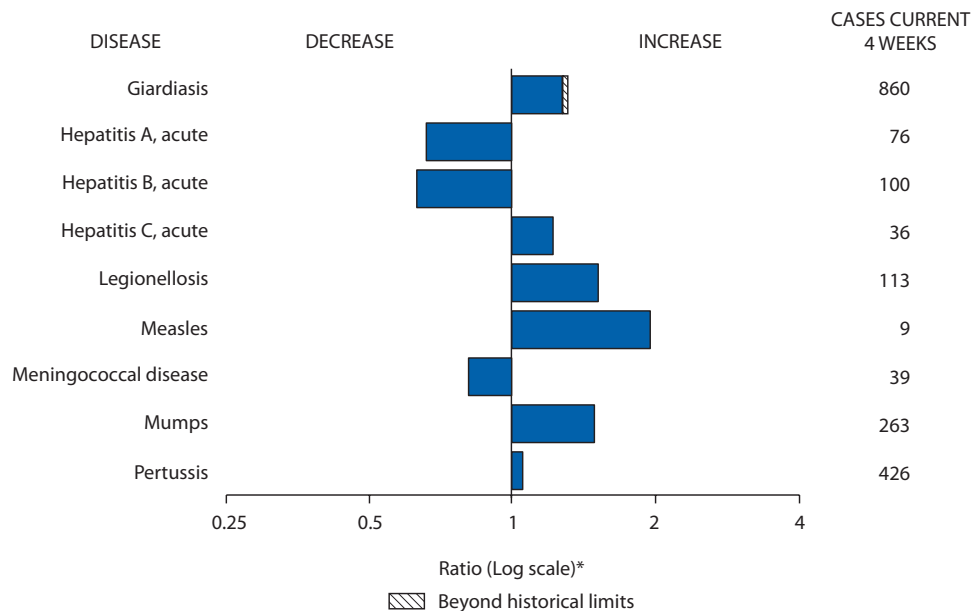
Disease	Current week	Cum 2010	5-year weekly average [†]	Total cases reported for previous years					States reporting cases during current week (No.)
				2009	2008	2007	2006	2005	
Anthrax	—	—	—	1	—	1	1	—	
Botulism, total	3	26	3	116	145	144	165	135	
foodborne	—	3	0	11	17	32	20	19	
infant	1	19	2	80	109	85	97	85	TX (1)
other (wound and unspecified)	2	4	0	25	19	27	48	31	CA (2)
Brucellosis	2	34	2	115	80	131	121	120	FL (1), CA (1)
Chancroid	1	26	0	33	25	23	33	17	MA (1)
Cholera	—	2	0	9	5	7	9	8	
Cyclosporiasis [§]	1	28	17	141	139	93	137	543	FL (1)
Diphtheria	—	—	—	—	—	—	—	—	
Domestic arboviral diseases ^{§,¶} :									
California serogroup virus disease	—	—	0	55	62	55	67	80	
Eastern equine encephalitis virus disease	—	—	—	4	4	4	8	21	
Powassan virus disease	—	—	0	6	2	7	1	1	
St. Louis encephalitis virus disease	—	—	0	12	13	9	10	13	
Western equine encephalitis virus disease	—	—	—	—	—	—	—	—	
<i>Haemophilus influenzae</i> ,** invasive disease (age <5 yrs):									
serotype b	—	7	0	35	30	22	29	9	
nonsertotype b	—	67	4	236	244	199	175	135	
unknown serotype	4	95	4	178	163	180	179	217	NY (1), NE (1), GA (2)
Hansen disease [§]	—	15	2	79	80	101	66	87	
Hantavirus pulmonary syndrome [§]	—	2	1	14	18	32	40	26	
Hemolytic uremic syndrome, postdiarrheal [§]	2	42	5	241	330	292	288	221	MO (1), OK (1)
HIV infection, pediatric (age <13 yrs) ^{††}	—	—	1	—	—	—	—	380	
Influenza-associated pediatric mortality ^{§,§§}	1	52	2	360	90	77	43	45	CT (1)
Listeriosis ^{¶¶}	5	197	10	852	759	808	884	896	NY (1), OH (1), MD (1), FL (2)
Measles ^{¶¶¶}	1	23	3	67	140	43	55	66	MN (1)
Meningococcal disease, invasive***:									
A, C, Y, and W-135	—	102	6	301	330	325	318	297	
serogroup B	1	44	3	174	188	167	193	156	NY (1)
other serogroup	—	6	1	23	38	35	32	27	
unknown serogroup	7	170	13	482	616	550	651	765	OH (1), MO (1), MD (1), TN (1), ID (1), OR (1), CA (1)
Mumps	7	1,480	61	2,067	454	800	6,584	314	NY (3), NE (1), TX (2), CA (1)
Novel influenza A virus infections ^{†††}	—	—	0	43,771	2	4	NN	NN	
Plague	—	—	0	8	3	7	17	8	
Poliomyelitis, paralytic	—	—	—	—	—	—	—	1	
Polio virus Infection, nonparalytic [§]	—	—	—	—	—	—	NN	NN	
Psittacosis [§]	—	4	0	9	8	12	21	16	
Q fever, total ^{§,§§§}	1	28	4	109	120	171	169	136	
acute	1	21	2	89	106	—	—	—	PA (1)
chronic	—	7	0	20	14	—	—	—	
Rabies, human	—	—	—	3	2	1	3	2	
Rubella ^{¶¶¶¶}	—	2	0	3	16	12	11	11	
Rubella, congenital syndrome	—	—	0	1	—	—	1	1	
SARS-CoV ^{§,****}	—	—	—	—	—	—	—	—	
Smallpox [§]	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome [§]	5	72	3	162	157	132	125	129	CT (3), OH (2)
Syphilis, congenital (age <1 yr) ^{††††}	—	60	7	423	431	430	349	329	
Tetanus	—	—	0	18	19	28	41	27	
Toxic-shock syndrome (staphylococcal) [§]	1	34	2	74	71	92	101	90	CA (1)
Trichinellosis	—	1	0	12	39	5	15	16	
Tularemia	—	8	3	93	123	137	95	154	
Typhoid fever	3	134	7	399	449	434	353	324	FL (1), CA (2)
Vancomycin-intermediate <i>Staphylococcus aureus</i> [§]	—	27	1	77	63	37	6	2	
Vancomycin-resistant <i>Staphylococcus aureus</i> [§]	—	1	—	—	—	2	1	3	
Vibriosis (noncholera <i>Vibrio</i> species infections) [§]	8	86	5	790	588	549	NN	NN	VA (1), FL (5), TN (1), CA (1)
Viral hemorrhagic fever ^{§§§§}	—	1	—	NN	NN	NN	NN	NN	
Yellow fever	—	—	—	—	—	—	—	—	

See Table I footnotes on next page.

TABLE I. (Continued) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending May 29, 2010 (21st week)*

—: No reported cases. N: Not reportable. NN: Not Nationally Notifiable Cum: Cumulative year-to-date counts.
 * Incidence data for reporting years 2009 and 2010 are provisional, whereas data for 2005 through 2008 are finalized.
 † Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at <http://www.cdc.gov/ncphi/diss/nndss/phs/files/5yearweeklyaverage.pdf>.
 ‡ Not reportable in all states. Data from states where the condition is not reportable are excluded from this table, except starting in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at <http://www.cdc.gov/ncphi/diss/nndss/phs/infdis.htm>.
 ¶ Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.
 ** Data for *H. influenzae* (all ages, all serotypes) are available in Table II.
 †† Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly.
 ††† Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Since April 26, 2009, a total of 286 influenza-associated pediatric deaths associated with 2009 influenza A (H1N1) virus infection have been reported. Since August 30, 2009, a total of 277 influenza-associated pediatric deaths occurring during the 2009–10 influenza season have been reported. A total of 134 influenza-associated pediatric deaths occurring during the 2008–09 influenza season have been reported.
 ¶¶ The one measles case reported for the current week was imported.
 *** Data for meningococcal disease (all serogroups) are available in Table II.
 †††† CDC discontinued reporting of individual confirmed and probable cases of 2009 pandemic influenza A (H1N1) virus infections on July 24, 2009. CDC will report the total number of 2009 pandemic influenza A (H1N1) hospitalizations and deaths weekly on the CDC H1N1 influenza website (<http://www.cdc.gov/h1n1flu>). In addition, three cases of novel influenza A virus infections, unrelated to the 2009 pandemic influenza A (H1N1) virus, were reported to CDC during 2009.
 ††††† In 2009, Q fever acute and chronic reporting categories were recognized as a result of revisions to the Q fever case definition. Prior to that time, case counts were not differentiated with respect to acute and chronic Q fever cases.
 ¶¶¶ No rubella cases were reported for the current week.
 **** Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.
 ††††† Updated weekly from reports to the Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
 †††††† There was one case of viral hemorrhagic fever reported during week 12. The one case report was confirmed as lassa fever. See Table II for dengue hemorrhagic fever.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals May 29, 2010, with historical data



* Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

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TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending May 29, 2010, and May 30, 2009 (21st week)*

Reporting area	<i>Chlamydia trachomatis</i> infection					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max		
United States	8,769	22,768	27,363	396,493	506,387	51	122	284	1,859	2,002
New England	745	740	1,396	14,897	16,066	2	6	32	102	140
Connecticut	148	215	736	3,541	4,638	—	0	28	28	38
Maine†	—	48	75	953	1,033	2	1	4	25	14
Massachusetts	408	383	767	8,043	7,589	—	1	15	—	39
New Hampshire	66	35	99	452	847	—	2	6	21	21
Rhode Island†	87	70	130	1,433	1,469	—	0	8	8	2
Vermont†	36	23	63	475	490	—	1	9	20	26
Mid. Atlantic	2,791	3,113	4,619	67,026	63,939	6	14	38	220	237
New Jersey	278	441	624	8,724	10,171	—	0	5	—	14
New York (Upstate)	615	634	2,530	13,333	11,789	5	3	16	53	53
New York City	1,292	1,182	2,253	26,523	24,303	—	1	5	19	36
Pennsylvania	606	857	1,056	18,446	17,676	1	9	19	148	134
E.N. Central	586	3,409	4,413	42,173	83,331	9	28	73	395	488
Illinois	—	1,048	1,322	146	25,458	—	3	8	54	45
Indiana	—	309	602	4,822	9,501	—	4	11	58	110
Michigan	586	885	1,412	20,131	19,528	1	6	11	107	89
Ohio	—	920	1,039	14,280	19,956	8	7	16	134	127
Wisconsin	—	365	466	2,794	8,888	—	8	39	42	117
W.N. Central	6	1,308	1,711	22,783	28,993	2	19	59	285	272
Iowa	6	178	252	3,991	4,109	—	4	13	68	67
Kansas	—	172	571	2,745	4,225	—	2	6	29	27
Minnesota	—	263	337	4,927	6,019	—	5	31	94	59
Missouri	—	489	638	8,613	10,641	1	3	12	48	50
Nebraska†	—	93	237	1,877	2,090	1	2	9	37	27
North Dakota	—	31	93	630	678	—	0	18	3	1
South Dakota	—	49	82	—	1,231	—	1	10	6	41
S. Atlantic	1,901	4,324	6,098	67,030	104,226	14	20	50	350	340
Delaware	75	87	145	1,732	1,982	—	0	2	1	—
District of Columbia	148	113	178	2,091	2,893	—	0	1	2	3
Florida	658	1,402	1,669	28,824	30,458	9	8	24	142	109
Georgia	2	455	1,323	2,427	17,302	2	6	31	134	135
Maryland†	—	436	1,031	7,387	9,047	—	1	3	11	19
North Carolina	—	654	1,291	—	17,297	—	1	11	11	29
South Carolina†	584	521	1,331	11,007	11,359	—	1	7	15	18
Virginia†	385	600	924	12,074	12,271	3	1	7	28	22
West Virginia	49	67	137	1,488	1,617	—	0	2	6	5
E.S. Central	518	1,700	2,268	31,025	37,367	—	4	10	67	58
Alabama†	—	476	629	9,083	11,023	—	1	5	21	19
Kentucky	—	290	642	5,032	4,267	—	2	4	23	14
Mississippi	—	429	640	6,559	9,966	—	0	3	4	5
Tennessee†	518	561	734	10,351	12,111	—	1	5	19	20
W.S. Central	552	2,949	5,784	59,003	64,682	5	8	40	102	100
Arkansas†	296	277	402	6,124	5,973	—	1	5	12	12
Louisiana	—	386	1,055	2,922	12,378	—	1	6	14	11
Oklahoma	255	252	2,727	6,190	2,981	3	2	9	20	27
Texas†	1	2,041	3,232	43,767	43,350	2	5	30	56	50
Mountain	419	1,542	2,118	27,483	28,797	1	10	25	159	152
Arizona	201	489	713	9,238	10,439	—	0	3	10	13
Colorado	—	429	709	6,699	4,515	—	2	10	47	36
Idaho†	—	64	185	1,046	1,563	—	1	7	27	18
Montana†	13	57	78	1,210	1,328	—	1	4	21	14
Nevada†	160	171	478	3,847	4,181	—	0	2	5	7
New Mexico†	—	166	453	2,213	3,337	1	2	8	25	46
Utah	45	115	175	2,490	2,615	—	1	4	17	6
Wyoming†	—	34	70	740	819	—	0	2	7	12
Pacific	1,251	3,456	5,313	65,073	78,986	12	13	27	179	215
Alaska	—	103	144	2,360	2,255	—	0	1	1	2
California	1,251	2,677	4,406	51,324	60,437	5	8	20	105	112
Hawaii	—	112	137	2,010	2,546	—	0	0	—	1
Oregon	—	176	468	1,367	4,492	3	2	10	47	76
Washington	—	395	638	8,012	9,256	4	1	8	26	24
American Samoa	—	0	0	—	—	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	1	27	78	—	—	0	0	—	—
Puerto Rico	—	114	329	2,125	3,038	N	0	0	N	N
U.S. Virgin Islands	—	9	16	132	214	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

* Incidence data for reporting years 2009 and 2010 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly.

† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 29, 2010, and May 30, 2009 (21st week)*

Reporting area	Dengue Virus Infection									
	Dengue Fever [†]					Dengue Hemorrhagic Fever [‡]				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
	Med	Max				Med	Max			
United States	—	0	8	34	NN	—	0	0	—	NN
New England	—	0	1	1	NN	—	0	0	—	NN
Connecticut	—	0	0	—	NN	—	0	0	—	NN
Maine [¶]	—	0	1	1	NN	—	0	0	—	NN
Massachusetts	—	0	0	—	NN	—	0	0	—	NN
New Hampshire	—	0	0	—	NN	—	0	0	—	NN
Rhode Island [¶]	—	0	0	—	NN	—	0	0	—	NN
Vermont [¶]	—	0	0	—	NN	—	0	0	—	NN
Mid. Atlantic	—	0	3	12	NN	—	0	0	—	NN
New Jersey	—	0	0	—	NN	—	0	0	—	NN
New York (Upstate)	—	0	0	—	NN	—	0	0	—	NN
New York City	—	0	2	8	NN	—	0	0	—	NN
Pennsylvania	—	0	2	4	NN	—	0	0	—	NN
E.N. Central	—	0	2	5	NN	—	0	0	—	NN
Illinois	—	0	0	—	NN	—	0	0	—	NN
Indiana	—	0	0	—	NN	—	0	0	—	NN
Michigan	—	0	0	—	NN	—	0	0	—	NN
Ohio	—	0	2	5	NN	—	0	0	—	NN
Wisconsin	—	0	0	—	NN	—	0	0	—	NN
W.N. Central	—	0	1	1	NN	—	0	0	—	NN
Iowa	—	0	0	—	NN	—	0	0	—	NN
Kansas	—	0	0	—	NN	—	0	0	—	NN
Minnesota	—	0	0	—	NN	—	0	0	—	NN
Missouri	—	0	0	—	NN	—	0	0	—	NN
Nebraska [¶]	—	0	0	—	NN	—	0	0	—	NN
North Dakota	—	0	1	1	NN	—	0	0	—	NN
South Dakota	—	0	0	—	NN	—	0	0	—	NN
S. Atlantic	—	0	2	10	NN	—	0	0	—	NN
Delaware	—	0	0	—	NN	—	0	0	—	NN
District of Columbia	—	0	0	—	NN	—	0	0	—	NN
Florida	—	0	2	9	NN	—	0	0	—	NN
Georgia	—	0	1	1	NN	—	0	0	—	NN
Maryland [¶]	—	0	0	—	NN	—	0	0	—	NN
North Carolina	—	0	0	—	NN	—	0	0	—	NN
South Carolina [¶]	—	0	0	—	NN	—	0	0	—	NN
Virginia [¶]	—	0	0	—	NN	—	0	0	—	NN
West Virginia	—	0	0	—	NN	—	0	0	—	NN
E.S. Central	—	0	0	—	NN	—	0	0	—	NN
Alabama [¶]	—	0	0	—	NN	—	0	0	—	NN
Kentucky	—	0	0	—	NN	—	0	0	—	NN
Mississippi	—	0	0	—	NN	—	0	0	—	NN
Tennessee [¶]	—	0	0	—	NN	—	0	0	—	NN
W.S. Central	—	0	0	—	NN	—	0	0	—	NN
Arkansas [¶]	—	0	0	—	NN	—	0	0	—	NN
Louisiana	—	0	0	—	NN	—	0	0	—	NN
Oklahoma	—	0	0	—	NN	—	0	0	—	NN
Texas [¶]	—	0	0	—	NN	—	0	0	—	NN
Mountain	—	0	1	2	NN	—	0	0	—	NN
Arizona	—	0	0	—	NN	—	0	0	—	NN
Colorado	—	0	0	—	NN	—	0	0	—	NN
Idaho [¶]	—	0	0	—	NN	—	0	0	—	NN
Montana [¶]	—	0	0	—	NN	—	0	0	—	NN
Nevada [¶]	—	0	1	1	NN	—	0	0	—	NN
New Mexico [¶]	—	0	1	1	NN	—	0	0	—	NN
Utah	—	0	0	—	NN	—	0	0	—	NN
Wyoming [¶]	—	0	0	—	NN	—	0	0	—	NN
Pacific	—	0	2	3	NN	—	0	0	—	NN
Alaska	—	0	0	—	NN	—	0	0	—	NN
California	—	0	1	1	NN	—	0	0	—	NN
Hawaii	—	0	0	—	NN	—	0	0	—	NN
Oregon	—	0	0	—	NN	—	0	0	—	NN
Washington	—	0	2	2	NN	—	0	0	—	NN
American Samoa	—	0	0	—	NN	—	0	0	—	NN
C.N.M.I.	—	—	—	—	NN	—	—	—	—	NN
Guam	—	0	0	—	NN	—	0	0	—	NN
Puerto Rico	—	0	82	795	NN	—	0	3	19	NN
U.S. Virgin Islands	—	0	0	—	NN	—	0	0	—	NN

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

* Incidence data for reporting years 2009 and 2010 are provisional.

† Dengue Fever includes cases that meet criteria for Dengue Fever with hemorrhage.

‡ DHF includes cases that meet criteria for dengue shock syndrome (DSS), a more severe form of DHF.

¶ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 29, 2010, and May 30, 2009 (21st week)*

Reporting area	Ehrlichiosis/Anaplasmosis†														
	Ehrlichia chaffeensis					Anaplasma phagocytophilum					Undetermined				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	5	10	153	62	122	3	13	302	23	114	—	2	37	6	41
New England	—	0	4	2	4	1	1	21	7	24	—	0	1	—	1
Connecticut	—	0	0	—	—	—	0	13	—	—	—	0	0	—	—
Maine§	—	0	1	2	—	1	0	3	4	4	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	1	—	—	—	0	3	1	6	—	0	1	—	—
Rhode Island§	—	0	4	—	4	—	0	20	2	14	—	0	0	—	1
Vermont§	—	0	1	—	—	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	1	3	15	9	25	2	4	27	9	36	—	0	4	1	11
New Jersey	—	1	8	—	15	—	0	7	—	12	—	0	0	—	—
New York (Upstate)	1	1	15	5	5	2	2	20	9	23	—	0	2	1	1
New York City	—	0	2	3	1	—	0	1	—	1	—	0	1	—	1
Pennsylvania	—	0	5	1	4	—	0	1	—	—	—	0	3	—	9
E.N. Central	—	0	8	—	24	—	2	23	1	51	—	0	7	1	16
Illinois	—	0	4	—	9	—	0	1	—	1	—	0	1	—	2
Indiana	—	0	0	—	—	—	0	0	—	—	—	0	3	1	10
Michigan	—	0	1	—	1	—	0	0	—	—	—	0	0	—	—
Ohio	—	0	2	—	2	—	0	0	—	1	—	0	1	—	—
Wisconsin	—	0	3	—	12	—	2	22	1	49	—	0	4	—	4
W.N. Central	2	2	23	13	19	—	0	261	—	—	—	0	30	2	4
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Kansas	—	0	2	—	2	—	0	1	—	—	—	0	0	—	—
Minnesota	—	0	6	—	—	—	0	261	—	—	—	0	30	—	2
Missouri	2	1	22	13	17	—	0	2	—	—	—	0	4	2	2
Nebraska§	—	0	1	—	—	—	0	1	—	—	—	0	0	—	—
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
S. Atlantic	2	3	14	25	30	—	0	2	6	2	—	0	2	—	—
Delaware	—	0	2	4	4	—	0	1	1	—	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Florida	—	0	1	2	3	—	0	1	—	—	—	0	0	—	—
Georgia	—	0	2	3	7	—	0	1	1	—	—	0	0	—	—
Maryland§	—	0	4	4	11	—	0	1	2	2	—	0	0	—	—
North Carolina	—	0	3	7	—	—	0	1	1	—	—	0	0	—	—
South Carolina§	—	0	1	—	2	—	0	0	—	—	—	0	0	—	—
Virginia§	2	1	13	5	3	—	0	1	1	—	—	0	2	—	—
West Virginia	—	0	1	—	—	—	0	0	—	—	—	0	1	—	—
E.S. Central	—	1	11	7	17	—	0	1	—	1	—	0	5	2	9
Alabama§	—	0	3	1	—	—	0	1	—	—	—	0	0	—	—
Kentucky	—	0	2	1	1	—	0	0	—	—	—	0	0	—	—
Mississippi	—	0	2	—	—	—	0	0	—	—	—	0	0	—	—
Tennessee§	—	1	10	5	16	—	0	1	—	1	—	0	5	2	9
W.S. Central	—	0	118	6	1	—	0	17	—	—	—	0	3	—	—
Arkansas§	—	0	11	—	—	—	0	0	—	—	—	0	3	—	—
Louisiana	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	105	5	1	—	0	16	—	—	—	0	0	—	—
Texas§	—	0	2	1	—	—	0	1	—	—	—	0	0	—	—
Mountain	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Arizona	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Colorado	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Idaho§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Montana§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Nevada§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
New Mexico§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Utah	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Wyoming§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	1	—	2	—	0	1	—	—	—	0	1	—	—
Alaska	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
California	—	0	1	—	2	—	0	1	—	—	—	0	1	—	—
Hawaii	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Washington	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
 U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
 * Incidence data for reporting years 2009 and 2010 are provisional.
 † Cumulative total *E. ewingii* cases reported as of this week = 0.
 § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 29, 2010, and May 30, 2009 (21st week)*

Reporting area	Hepatitis (viral, acute), by type														
	A				B				C						
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
	Med	Max				Med	Max				Med	Max			
United States	13	33	68	523	786	26	56	203	1,011	1,371	7	15	43	288	309
New England	—	1	5	19	43	—	1	4	19	26	—	1	5	9	22
Connecticut	—	0	2	12	9	—	0	3	5	5	—	1	4	9	17
Maine†	—	0	1	3	1	—	0	2	8	6	—	0	1	—	—
Massachusetts	—	1	4	—	23	—	0	2	—	12	—	0	1	—	4
New Hampshire	—	0	1	—	5	—	0	2	5	3	—	0	0	—	—
Rhode Island†	—	0	4	4	3	—	0	0	—	—	—	0	0	—	—
Vermont†	—	0	1	—	2	—	0	1	1	—	—	0	0	—	1
Mid. Atlantic	3	4	10	76	103	3	5	10	116	164	1	2	4	37	39
New Jersey	—	1	5	8	34	—	1	4	24	55	—	0	2	4	6
New York (Upstate)	3	1	3	24	18	2	1	6	22	28	1	1	3	22	18
New York City	—	2	5	24	25	—	1	4	35	30	—	0	1	—	1
Pennsylvania	—	1	6	20	26	1	1	5	35	51	—	0	3	11	14
E.N. Central	—	4	19	65	121	1	7	14	132	198	—	2	5	50	38
Illinois	—	1	13	13	44	—	2	6	23	44	—	0	1	—	3
Indiana	—	0	4	8	9	—	1	5	19	37	—	0	3	8	5
Michigan	—	1	4	25	31	—	2	6	44	55	—	1	5	40	12
Ohio	—	0	4	14	23	1	2	4	46	53	—	0	3	2	16
Wisconsin	—	0	2	5	14	—	0	3	—	9	—	0	1	—	2
W.N. Central	1	1	10	22	50	1	3	15	53	50	—	0	11	13	4
Iowa	—	0	3	4	15	—	1	3	9	10	—	0	4	1	2
Kansas	—	0	2	6	5	—	0	2	2	4	—	0	0	—	1
Minnesota	—	0	8	1	12	—	0	13	2	10	—	0	9	3	—
Missouri	1	0	3	10	8	1	1	5	32	16	—	0	1	7	—
Nebraska†	—	0	3	1	8	—	0	2	8	9	—	0	1	1	1
North Dakota	—	0	1	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	1	—	2	—	0	1	—	1	—	0	1	1	—
S. Atlantic	2	7	14	121	180	12	16	39	310	375	2	3	8	63	89
Delaware	—	0	1	5	2	—	1	2	12	15	U	0	0	U	U
District of Columbia	—	0	1	1	1	—	0	2	2	4	—	0	1	2	—
Florida	2	3	8	46	84	11	5	11	128	128	—	1	4	22	13
Georgia	—	1	3	16	15	1	3	7	61	58	1	0	2	5	20
Maryland†	—	0	4	10	18	—	1	6	23	42	1	1	3	13	17
North Carolina	—	0	3	11	31	—	1	4	4	54	—	0	4	9	17
South Carolina†	—	1	4	18	16	—	1	4	15	18	—	0	0	—	1
Virginia†	—	1	3	13	13	—	2	14	40	35	—	0	2	6	6
West Virginia	—	0	2	1	—	—	0	19	25	21	—	0	3	6	15
E.S. Central	1	1	3	17	15	—	6	13	105	149	1	2	6	50	44
Alabama†	—	0	2	4	3	—	1	5	24	45	1	0	2	2	5
Kentucky	—	0	2	9	2	—	2	6	34	36	—	1	5	36	24
Mississippi	—	0	1	—	5	—	0	3	8	10	—	0	0	—	—
Tennessee†	1	0	2	4	5	—	2	6	39	58	—	0	3	12	15
W.S. Central	4	3	19	56	71	6	10	109	138	222	2	1	14	22	18
Arkansas†	—	0	3	—	5	—	0	4	3	23	—	0	1	—	1
Louisiana	—	0	1	3	2	—	1	5	16	23	—	0	1	2	4
Oklahoma	—	0	3	—	1	4	1	19	29	45	2	0	12	11	2
Texas†	4	3	18	53	63	2	5	87	90	131	—	0	4	9	11
Mountain	—	3	8	57	54	—	2	6	34	54	—	1	4	17	24
Arizona	—	1	5	31	20	—	0	3	11	23	—	0	0	—	—
Colorado	—	1	4	9	16	—	0	2	1	11	—	0	3	2	13
Idaho†	—	0	1	3	—	—	0	2	4	2	—	0	2	6	1
Montana†	—	0	1	4	3	—	0	1	—	—	—	0	0	—	1
Nevada†	—	0	2	6	7	—	1	3	14	8	—	0	1	1	2
New Mexico†	—	0	1	3	5	—	0	1	2	4	—	0	2	5	5
Utah	—	0	2	1	3	—	0	1	2	4	—	0	1	3	2
Wyoming†	—	0	1	—	—	—	0	1	—	2	—	0	0	—	—
Pacific	2	5	16	90	149	3	6	20	104	133	1	1	6	27	31
Alaska	—	0	0	—	3	—	0	1	1	2	—	0	2	—	—
California	—	4	15	73	109	1	4	16	73	97	—	1	4	9	15
Hawaii	—	0	2	—	6	—	0	1	—	3	—	0	0	—	—
Oregon	—	0	2	8	8	—	1	4	15	16	—	0	3	10	8
Washington	2	0	4	9	23	2	0	4	15	15	1	0	6	8	8
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	6	10	—	—	1	6	22	—	—	1	5	19	—
Puerto Rico	—	0	2	2	14	—	0	5	7	11	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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 U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
 * Incidence data for reporting years 2009 and 2010 are provisional.
 † Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 29, 2010, and May 30, 2009 (21st week)*

Reporting area	Legionellosis					Lyme disease					Malaria				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	37	57	174	667	692	125	426	2,342	3,819	5,869	6	26	87	379	441
New England	2	3	18	22	26	6	121	857	629	2,150	1	1	4	5	19
Connecticut	1	1	5	11	6	—	31	295	232	886	1	0	3	1	1
Maine†	1	0	3	3	—	4	14	76	145	75	—	0	1	1	1
Massachusetts	—	0	9	—	18	—	42	401	—	821	—	0	3	—	12
New Hampshire	—	0	3	2	—	—	17	95	206	306	—	0	1	1	1
Rhode Island†	—	0	4	5	1	—	1	29	10	16	—	0	1	1	2
Vermont†	—	0	1	1	1	2	5	45	36	46	—	0	1	1	2
Mid. Atlantic	16	18	73	163	184	84	190	999	2,204	2,215	1	7	17	109	121
New Jersey	—	3	14	3	35	—	39	430	518	893	—	1	5	1	33
New York (Upstate)	8	5	29	53	60	63	54	577	523	569	—	1	4	26	17
New York City	—	3	19	34	23	—	13	58	2	188	1	3	12	59	55
Pennsylvania	8	6	25	73	66	21	66	475	1,161	565	—	1	4	23	16
E.N. Central	5	10	41	113	146	—	19	258	66	365	—	2	12	36	58
Illinois	—	1	11	7	21	—	1	12	5	16	—	1	6	17	26
Indiana	—	1	5	9	18	—	1	6	9	14	—	0	4	2	9
Michigan	—	3	13	29	23	—	1	9	6	4	—	0	3	4	6
Ohio	5	5	17	66	63	—	1	5	5	4	—	0	6	13	14
Wisconsin	—	0	6	2	21	—	18	239	41	327	—	0	2	—	3
W.N. Central	2	2	19	26	23	—	3	1,395	12	55	—	1	11	21	20
Iowa	—	0	3	2	8	—	0	15	5	19	—	0	1	6	4
Kansas	—	0	1	2	3	—	0	2	3	7	—	0	1	3	1
Minnesota	—	0	16	9	—	—	0	1,380	—	26	—	0	11	3	9
Missouri	2	1	5	9	7	—	0	1	1	1	—	0	1	3	4
Nebraska†	—	0	2	2	4	—	0	3	3	1	—	0	2	6	1
North Dakota	—	0	1	2	1	—	0	15	—	—	—	0	1	—	—
South Dakota	—	0	1	—	—	—	0	0	—	1	—	0	0	—	1
S. Atlantic	6	11	24	142	143	32	66	255	782	987	1	6	15	103	138
Delaware	—	0	5	5	1	2	12	65	198	223	—	0	1	2	1
District of Columbia	—	0	5	2	5	—	0	7	3	9	—	0	3	5	5
Florida	3	4	10	63	57	1	2	11	27	11	1	2	7	46	35
Georgia	—	1	4	17	19	—	0	6	3	12	—	0	6	2	28
Maryland†	2	3	12	31	26	25	28	134	359	513	—	1	13	22	36
North Carolina	—	0	5	2	20	—	1	7	12	34	—	0	3	5	15
South Carolina†	—	0	2	1	2	—	1	3	10	13	—	0	1	1	1
Virginia†	1	1	6	19	13	4	13	79	155	139	—	1	5	20	16
West Virginia	—	0	2	2	—	—	0	33	15	33	—	0	2	—	1
E.S. Central	1	2	12	32	36	—	1	4	14	7	1	0	4	7	15
Alabama†	—	0	2	3	7	—	0	1	—	1	—	0	3	1	3
Kentucky	—	1	3	8	14	—	0	1	1	1	—	0	3	2	5
Mississippi	—	0	2	2	1	—	0	0	—	—	—	0	1	—	—
Tennessee†	1	1	9	19	14	—	1	4	13	5	1	0	1	4	7
W.S. Central	2	2	14	29	38	1	4	44	21	28	2	1	31	45	11
Arkansas†	—	0	1	1	3	—	0	0	—	—	—	0	1	1	—
Louisiana	—	0	3	1	5	—	0	0	—	—	—	0	1	—	3
Oklahoma	1	0	4	4	2	—	0	2	—	—	—	0	1	3	—
Texas†	1	1	10	23	28	1	4	42	21	28	2	1	30	41	8
Mountain	—	3	8	37	39	—	1	4	5	15	—	1	6	13	12
Arizona	—	1	4	14	16	—	0	1	—	1	—	0	2	6	1
Colorado	—	0	4	2	4	—	0	1	1	—	—	0	3	1	9
Idaho†	—	0	2	—	1	—	0	3	2	5	—	0	1	—	—
Montana†	—	0	1	1	4	—	0	1	—	1	—	0	3	1	—
Nevada†	—	0	2	11	6	—	0	2	—	4	—	0	1	2	—
New Mexico†	—	0	2	2	1	—	0	1	1	—	—	0	0	—	—
Utah	—	0	4	6	6	—	0	1	1	4	—	0	1	3	2
Wyoming†	—	0	2	1	1	—	0	1	—	—	—	0	0	—	—
Pacific	3	4	19	103	57	2	4	10	86	47	—	3	19	40	47
Alaska	—	0	0	—	1	—	0	1	1	2	—	0	1	2	1
California	3	3	19	94	49	2	3	9	58	27	—	2	13	28	34
Hawaii	—	0	0	—	1	N	0	0	N	N	—	0	0	—	1
Oregon	—	0	3	2	3	—	1	4	26	16	—	0	1	3	6
Washington	—	0	4	7	3	—	0	3	1	2	—	0	5	7	5
American Samoa	—	0	0	—	—	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	1	—	—	N	0	0	N	N	—	0	2	1	1
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 29, 2010, and May 30, 2009 (21st week)*

Reporting area	Meningococcal disease, invasive [†]					Pertussis					Rabies, animal				
	All groups														
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	8	16	43	322	477	157	266	1,752	3,770	5,321	53	73	147	1,002	2,074
New England	—	0	2	4	16	2	7	23	32	261	7	5	24	100	125
Connecticut	—	0	2	—	2	—	1	4	14	14	7	1	22	50	49
Maine [§]	—	0	1	1	2	2	0	10	7	37	—	1	4	25	20
Massachusetts	—	0	1	—	9	—	4	12	—	167	—	0	0	—	—
New Hampshire	—	0	1	—	1	—	1	6	3	29	—	0	3	3	14
Rhode Island [§]	—	0	1	—	1	—	0	8	5	8	—	0	5	3	15
Vermont [§]	—	0	1	3	1	—	0	1	3	6	—	1	5	19	27
Mid. Atlantic	1	2	4	32	52	18	20	42	259	466	14	10	23	245	238
New Jersey	—	0	2	8	6	—	4	10	32	103	—	0	0	—	—
New York (Upstate)	1	0	3	7	11	8	5	27	103	69	14	9	22	185	136
New York City	—	0	2	7	10	—	0	11	3	42	—	0	11	60	2
Pennsylvania	—	1	2	10	25	10	8	22	121	252	—	0	0	—	100
E.N. Central	1	3	7	45	87	55	56	105	978	1,057	1	2	19	35	49
Illinois	—	0	4	7	21	—	9	29	122	264	—	1	9	15	17
Indiana	—	0	2	11	21	—	6	16	79	127	—	0	5	—	11
Michigan	—	0	5	7	12	13	18	41	316	224	1	1	6	14	16
Ohio	1	1	2	17	20	42	19	49	456	382	—	0	5	6	5
Wisconsin	—	0	2	3	13	—	1	12	5	60	—	0	0	—	—
W.N. Central	1	1	6	23	36	11	27	627	311	916	3	6	18	81	152
Iowa	—	0	3	4	4	—	4	17	102	87	—	0	4	—	13
Kansas	—	0	2	1	6	—	3	12	45	89	—	1	4	22	41
Minnesota	—	0	2	2	8	—	0	601	6	173	—	0	9	13	18
Missouri	1	0	3	11	13	7	12	35	118	473	2	1	5	20	15
Nebraska [§]	—	0	2	5	3	4	2	5	37	83	1	1	6	23	42
North Dakota	—	0	1	—	—	—	0	12	—	2	—	0	7	3	4
South Dakota	—	0	2	—	2	—	0	6	3	9	—	0	4	—	19
S. Atlantic	1	2	7	66	95	32	22	63	381	580	26	31	58	413	943
Delaware	—	0	1	1	2	—	0	2	—	6	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	1	2	3	—	0	0	—	—
Florida	—	1	5	35	29	28	6	29	112	196	—	0	21	43	161
Georgia	—	0	1	6	17	—	3	8	71	113	—	5	14	—	180
Maryland [§]	1	0	1	3	4	—	3	8	43	50	—	7	15	137	146
North Carolina	—	0	2	5	24	—	1	9	—	87	—	5	17	—	198
South Carolina [§]	—	0	1	5	6	2	4	18	98	58	—	0	0	—	—
Virginia [§]	—	0	2	10	9	2	4	15	48	62	22	10	26	200	216
West Virginia	—	0	2	1	4	—	0	6	7	5	4	2	6	33	42
E.S. Central	1	0	4	18	17	1	15	31	285	299	—	2	7	48	73
Alabama [§]	—	0	2	4	4	—	4	17	66	107	—	0	4	16	—
Kentucky	—	0	2	7	3	—	4	15	113	93	—	0	2	3	24
Mississippi	—	0	1	2	2	—	1	6	19	29	—	0	1	—	1
Tennessee [§]	1	0	2	5	8	1	4	10	87	70	—	1	6	29	48
W.S. Central	—	1	9	37	39	28	69	754	1,025	930	1	9	40	11	355
Arkansas [§]	—	0	2	3	5	—	5	30	30	102	—	0	10	6	16
Louisiana	—	0	3	8	10	—	1	7	9	76	—	0	0	—	—
Oklahoma	—	0	7	12	2	—	0	41	5	12	1	0	15	5	4
Texas [§]	—	1	7	14	22	28	61	681	981	740	—	8	30	—	335
Mountain	1	1	4	25	39	5	17	41	304	425	—	1	8	15	44
Arizona	—	0	2	7	7	—	6	12	110	81	—	0	5	—	—
Colorado	—	0	3	6	11	—	3	13	42	111	—	0	0	—	—
Idaho [§]	1	0	1	4	5	5	1	19	65	41	—	0	2	1	—
Montana [§]	—	0	1	1	5	—	1	6	7	10	—	0	4	—	13
Nevada [§]	—	0	1	4	3	—	0	6	2	6	—	0	1	—	—
New Mexico [§]	—	0	1	2	3	—	1	6	29	30	—	0	3	4	15
Utah	—	0	1	1	1	—	3	7	47	129	—	0	2	—	1
Wyoming [§]	—	0	1	—	4	—	0	2	2	17	—	0	3	10	15
Pacific	2	3	16	72	96	5	22	186	195	387	1	4	12	54	95
Alaska	—	0	2	1	3	—	0	4	11	26	—	0	2	11	16
California	1	2	13	49	62	—	11	162	27	148	1	3	11	39	79
Hawaii	—	0	2	—	3	—	0	4	—	14	—	0	0	—	—
Oregon	1	0	5	13	19	2	4	12	101	89	—	0	2	4	—
Washington	—	0	7	9	9	3	5	24	56	110	—	0	0	—	—
American Samoa	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	1	—	—	—	0	0	—	1	—	1	3	20	20
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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[†] Data for meningococcal disease, invasive caused by serogroups A, C, Y, and W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I.[§] Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 29, 2010, and May 30, 2009 (21st week)*

Reporting area	Salmonellosis					Shiga toxin-producing <i>E. coli</i> (STEC) [†]					Shigellosis				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	354	959	1,520	10,198	13,870	38	75	193	877	1,310	125	276	522	4,518	6,366
New England	1	22	146	271	1,107	—	2	30	32	126	—	3	28	30	114
Connecticut	—	0	141	141	430	—	0	18	18	67	—	0	19	19	43
Maine [§]	1	2	7	30	42	—	0	2	3	8	—	0	2	3	2
Massachusetts	—	16	47	—	408	—	1	6	—	30	—	2	27	—	57
New Hampshire	—	3	9	50	151	—	0	3	9	15	—	0	5	3	2
Rhode Island [§]	—	2	11	33	54	—	0	26	—	—	—	0	7	4	7
Vermont [§]	—	1	5	17	22	—	0	3	2	6	—	0	1	1	3
Mid. Atlantic	40	84	208	1,379	1,622	7	6	24	111	136	10	39	90	622	1,239
New Jersey	—	18	47	169	337	—	1	5	8	42	—	6	23	98	309
New York (Upstate)	19	24	78	363	364	4	3	15	49	33	3	4	19	68	72
New York City	10	23	46	368	371	—	1	4	12	28	—	7	15	113	197
Pennsylvania	11	28	67	479	550	3	2	8	42	33	7	21	63	343	661
E.N. Central	39	74	168	1,081	1,812	4	9	29	106	239	17	29	233	719	1,273
Illinois	—	24	52	338	519	—	1	6	10	75	—	9	227	501	312
Indiana	—	10	31	36	179	—	1	9	13	25	—	1	5	13	34
Michigan	3	15	34	228	381	1	2	7	38	41	—	4	10	67	110
Ohio	36	25	52	445	495	3	2	11	39	39	17	9	46	126	610
Wisconsin	—	10	30	34	238	—	2	11	6	59	—	4	23	12	207
W.N. Central	14	45	94	669	949	7	10	39	158	163	47	42	88	1,098	307
Iowa	1	7	16	102	148	—	2	14	24	38	—	0	5	18	38
Kansas	—	6	20	99	117	—	1	5	12	20	—	4	14	84	95
Minnesota	—	10	32	177	216	—	2	17	31	39	—	1	6	14	28
Missouri	12	13	29	217	176	7	2	28	74	38	47	36	75	972	133
Nebraska [§]	1	4	12	59	176	—	1	6	16	23	—	0	3	10	10
North Dakota	—	0	39	8	12	—	0	7	—	1	—	0	5	—	1
South Dakota	—	1	9	7	104	—	0	12	1	4	—	0	1	—	2
S. Atlantic	137	286	503	2,888	3,146	8	12	22	167	228	28	40	73	665	928
Delaware	—	2	9	29	25	—	0	2	1	5	—	3	10	31	28
District of Columbia	—	2	6	23	37	—	0	1	2	1	—	0	3	11	13
Florida	73	132	277	1,390	1,324	3	3	7	64	67	14	11	19	254	175
Georgia	28	42	105	463	541	—	1	4	19	24	10	12	23	241	247
Maryland [§]	18	15	32	252	249	3	1	6	25	26	1	4	17	37	151
North Carolina	—	34	90	230	406	—	1	5	4	48	—	2	26	15	178
South Carolina [§]	10	17	66	199	224	—	0	3	5	10	1	1	6	29	61
Virginia [§]	8	18	68	239	284	2	3	13	44	39	2	3	15	46	70
West Virginia	—	4	23	63	56	—	0	5	3	8	—	0	2	1	5
E.S. Central	11	48	111	569	795	—	4	10	48	74	1	11	33	200	403
Alabama [§]	—	14	40	159	250	—	1	4	13	15	1	2	10	28	78
Kentucky	5	7	18	120	154	—	1	4	5	23	—	3	15	85	108
Mississippi	—	13	42	115	184	—	0	1	7	6	—	1	4	11	13
Tennessee [§]	6	13	33	175	207	—	1	8	23	30	—	5	14	76	204
W.S. Central	51	110	546	956	1,393	1	5	68	39	89	13	47	250	707	1,224
Arkansas [§]	—	9	25	54	155	—	0	4	5	9	—	3	15	12	127
Louisiana	—	21	46	206	287	—	0	3	4	11	—	3	7	60	94
Oklahoma	15	10	46	132	174	1	0	27	3	6	4	6	96	126	79
Texas [§]	36	59	477	564	777	—	3	41	27	63	9	34	144	509	924
Mountain	1	49	133	752	1,000	1	7	26	95	141	—	15	48	178	431
Arizona	—	18	50	238	349	—	1	4	21	16	—	10	42	93	298
Colorado	—	11	33	193	201	—	2	11	16	64	—	2	6	28	33
Idaho [§]	—	3	10	45	61	1	1	7	14	14	—	0	1	5	2
Montana [§]	—	2	7	34	50	—	0	7	15	6	—	0	1	4	11
Nevada [§]	—	4	13	65	103	—	0	4	9	7	—	1	7	11	28
New Mexico [§]	1	5	40	76	98	—	1	3	10	13	—	1	8	33	49
Utah	—	6	14	86	114	—	1	11	9	20	—	0	4	4	10
Wyoming [§]	—	1	9	15	24	—	0	2	1	1	—	0	2	—	—
Pacific	60	122	299	1,633	2,046	10	9	46	121	114	9	21	64	299	447
Alaska	—	1	7	30	26	—	0	0	—	—	—	0	2	—	1
California	41	90	227	1,166	1,562	2	5	35	62	72	6	16	51	252	347
Hawaii	—	4	62	—	92	—	0	2	—	3	—	0	4	—	10
Oregon	1	9	48	228	153	1	1	11	11	11	—	1	4	22	23
Washington	18	14	61	209	213	7	3	18	48	28	3	2	9	25	66
American Samoa	—	1	1	1	—	—	0	0	—	—	—	1	1	1	3
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	1	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	8	39	69	204	—	0	0	—	—	—	0	1	—	5
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

* Incidence data for reporting years 2009 and 2010 are provisional.

† Includes *E. coli* O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped.

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 29, 2010, and May 30, 2009 (21st week)*

Reporting area	Spotted Fever Rickettsiosis (including RMSF) [†]									
	Confirmed					Probable				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
	Med	Max				Med	Max			
United States	—	2	12	18	31	5	11	354	147	342
New England	—	0	1	—	—	—	0	2	1	5
Connecticut	—	0	0	—	—	—	0	0	—	—
Maine [§]	—	0	0	—	—	—	0	1	1	4
Massachusetts	—	0	1	—	—	—	0	2	—	1
New Hampshire	—	0	0	—	—	—	0	1	—	—
Rhode Island [§]	—	0	0	—	—	—	0	0	—	—
Vermont [§]	—	0	1	—	—	—	0	0	—	—
Mid. Atlantic	—	0	2	3	—	—	1	7	13	28
New Jersey	—	0	1	—	—	—	0	4	—	22
New York (Upstate)	—	0	1	—	—	—	0	3	2	1
New York City	—	0	1	—	—	—	0	2	7	2
Pennsylvania	—	0	2	3	—	—	0	2	4	3
E.N. Central	—	0	1	—	3	—	0	7	—	26
Illinois	—	0	1	—	—	—	0	6	—	15
Indiana	—	0	1	—	2	—	0	2	—	2
Michigan	—	0	1	—	1	—	0	1	—	—
Ohio	—	0	0	—	—	—	0	4	—	8
Wisconsin	—	0	1	—	—	—	0	1	—	1
W.N. Central	—	0	3	2	3	1	2	23	38	50
Iowa	—	0	1	—	—	—	0	1	—	2
Kansas	—	0	1	—	—	—	0	0	—	—
Minnesota	—	0	1	—	—	—	0	1	—	—
Missouri	—	0	1	2	1	1	2	22	38	48
Nebraska [§]	—	0	2	—	2	—	0	1	—	—
North Dakota	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	0	—	—
S. Atlantic	—	1	7	9	21	2	3	31	52	139
Delaware	—	0	1	1	—	—	0	3	5	3
District of Columbia	—	0	0	—	—	—	0	1	—	—
Florida	—	0	1	1	—	2	0	1	5	2
Georgia	—	0	6	5	19	—	0	0	—	—
Maryland [§]	—	0	1	1	—	—	0	3	3	20
North Carolina	—	0	2	1	1	—	1	23	27	81
South Carolina [§]	—	0	1	—	1	—	0	1	2	13
Virginia [§]	—	0	1	—	—	—	0	5	10	20
West Virginia	—	0	0	—	—	—	0	1	—	—
E.S. Central	—	0	2	3	—	2	3	16	30	68
Alabama [§]	—	0	1	—	—	—	1	7	6	11
Kentucky	—	0	1	2	—	—	0	0	—	—
Mississippi	—	0	0	—	—	—	0	3	—	4
Tennessee [§]	—	0	2	1	—	2	2	13	24	53
W.S. Central	—	0	3	1	—	—	1	346	12	17
Arkansas [§]	—	0	0	—	—	—	0	48	—	2
Louisiana	—	0	0	—	—	—	0	1	—	1
Oklahoma	—	0	3	—	—	—	0	287	8	3
Texas [§]	—	0	1	1	—	—	0	11	4	11
Mountain	—	0	2	—	3	—	0	3	1	9
Arizona	—	0	2	—	1	—	0	2	—	4
Colorado	—	0	1	—	—	—	0	0	—	—
Idaho [§]	—	0	0	—	—	—	0	1	1	—
Montana [§]	—	0	1	—	2	—	0	1	—	3
Nevada [§]	—	0	0	—	—	—	0	1	—	—
New Mexico [§]	—	0	0	—	—	—	0	0	—	1
Utah	—	0	0	—	—	—	0	0	—	1
Wyoming [§]	—	0	1	—	—	—	0	1	—	—
Pacific	—	0	0	—	1	—	0	0	—	—
Alaska	N	0	0	N	N	N	0	0	N	N
California	—	0	0	—	1	—	0	0	—	—
Hawaii	N	0	0	N	N	N	0	0	N	N
Oregon	—	0	0	—	—	—	0	0	—	—
Washington	—	0	0	—	—	—	0	0	—	—
American Samoa	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	N	0	0	N	N	N	0	0	N	N
Puerto Rico	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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* Incidence data for reporting years 2009 and 2010 are provisional.

[†] Illnesses with similar clinical presentation that result from Spotted fever group rickettsia infections are reported as Spotted fever rickettsioses. Rocky Mountain spotted fever (RMSF) caused by *Rickettsia rickettsii* is the most common and well-known spotted fever.[§] Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

MMWR Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 29, 2010, and May 30, 2009 (21st week)*

Reporting area	<i>Streptococcus pneumoniae</i> ,† invasive disease										Syphilis, primary and secondary				
	All ages					Age <5					Current week	Previous 52 weeks		Cum 2010	Cum 2009
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009		Med	Max		
		Med	Max				Med	Max							
United States	118	60	434	6,757	1,679	20	48	160	1,088	1,212	47	236	413	4,034	5,596
New England	25	2	98	413	28	—	1	24	34	42	5	7	22	173	135
Connecticut	24	0	93	217	—	—	0	22	22	—	—	1	10	35	29
Maine [§]	—	1	6	60	7	—	0	2	6	1	—	0	3	14	1
Massachusetts	—	0	1	—	2	—	0	3	—	32	3	5	12	103	91
New Hampshire	—	0	7	56	—	—	0	2	3	6	1	0	1	6	10
Rhode Island [§]	—	0	7	40	11	—	0	1	2	1	1	0	5	13	4
Vermont [§]	1	0	6	40	8	—	0	1	1	2	—	0	2	2	—
Mid. Atlantic	13	6	44	551	97	5	6	52	151	144	24	33	47	672	749
New Jersey	—	0	5	48	—	—	1	4	27	24	5	4	12	93	100
New York (Upstate)	4	2	12	92	39	4	3	19	67	69	2	2	11	40	45
New York City	6	1	22	170	3	1	1	28	30	41	10	18	39	391	462
Pennsylvania	3	2	21	241	55	—	0	5	27	10	7	6	14	148	142
E.N. Central	13	13	75	930	387	2	8	18	165	203	—	24	44	267	579
Illinois	—	0	7	43	—	—	1	5	37	34	—	13	21	7	278
Indiana	—	5	20	227	156	—	1	6	26	40	—	2	9	43	69
Michigan	2	1	26	342	18	—	1	6	42	39	—	4	13	88	90
Ohio	11	8	19	227	213	2	2	6	51	69	—	7	13	129	125
Wisconsin	—	0	20	91	—	—	0	2	9	21	—	0	2	—	17
W.N. Central	4	4	182	474	99	1	3	12	88	89	—	5	12	74	126
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	2	2	11
Kansas	—	1	7	55	40	—	0	2	11	13	—	0	3	4	9
Minnesota	—	0	179	269	18	—	1	10	41	29	—	1	4	15	33
Missouri	1	1	8	63	33	1	1	3	26	31	—	3	8	49	67
Nebraska [§]	3	0	7	67	—	—	0	2	9	5	—	0	1	4	4
North Dakota	—	0	10	16	6	—	0	1	—	4	—	0	1	—	2
South Dakota	—	0	2	4	2	—	0	1	1	7	—	0	0	—	—
S. Atlantic	47	30	143	1,789	762	9	12	28	292	302	6	60	218	1,021	1,278
Delaware	—	0	3	18	10	—	0	2	—	—	—	0	3	3	14
District of Columbia	—	1	4	17	12	—	0	1	6	2	—	3	8	49	73
Florida	31	16	89	863	459	8	3	18	112	114	2	19	32	361	460
Georgia	4	10	28	289	210	—	4	12	81	69	—	13	167	169	244
Maryland [§]	8	0	25	248	4	—	1	6	30	46	—	6	12	95	110
North Carolina	—	0	0	—	—	—	0	0	—	—	—	10	31	171	211
South Carolina [§]	4	0	25	274	—	1	1	4	29	28	1	2	6	54	49
Virginia [§]	—	0	4	26	—	—	1	4	24	29	3	4	22	116	113
West Virginia	—	1	21	54	67	—	0	4	10	14	—	0	2	3	4
E.S. Central	5	5	50	630	172	1	2	8	60	71	2	20	39	320	481
Alabama [§]	—	0	0	—	—	—	0	0	—	—	—	6	17	100	188
Kentucky	2	1	15	89	48	1	0	2	7	7	—	1	13	29	24
Mississippi	—	1	6	32	25	—	0	2	6	7	—	5	17	72	83
Tennessee [§]	3	2	44	509	99	—	2	7	47	57	2	7	15	119	186
W.S. Central	8	4	89	879	63	1	6	41	144	171	6	45	72	630	1,148
Arkansas [§]	—	1	8	63	30	—	0	3	9	23	3	6	14	101	76
Louisiana	—	1	8	43	33	—	0	3	16	16	—	8	27	64	353
Oklahoma	1	0	5	31	—	1	1	5	31	28	3	1	6	24	39
Texas [§]	7	0	81	742	—	—	3	34	88	104	—	27	46	441	680
Mountain	1	3	82	949	69	—	5	12	134	172	1	9	18	141	211
Arizona	—	0	51	464	—	—	2	7	59	78	1	3	10	53	104
Colorado	—	0	20	270	—	—	1	4	36	27	—	2	5	41	38
Idaho [§]	—	0	1	8	—	—	0	1	4	4	—	0	1	2	2
Montana [§]	—	0	1	8	—	—	0	0	—	—	—	0	1	—	—
Nevada [§]	—	1	4	36	27	—	0	1	4	6	—	1	10	34	37
New Mexico [§]	—	0	8	79	—	—	0	4	12	19	—	1	4	7	19
Utah	1	1	9	76	35	—	1	4	17	37	—	0	2	4	11
Wyoming [§]	—	0	2	8	7	—	0	1	2	1	—	0	1	—	—
Pacific	2	0	14	142	2	1	0	7	20	18	3	40	59	736	889
Alaska	—	0	9	59	—	—	0	5	15	11	—	0	0	—	—
California	2	0	12	83	—	1	0	2	5	—	3	35	54	647	791
Hawaii	—	0	1	—	2	—	0	1	—	7	—	0	3	14	16
Oregon	—	0	0	—	—	—	0	0	—	—	—	0	5	6	20
Washington	—	0	0	—	—	—	0	0	—	—	—	3	7	69	62
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	—	3	17	73	84
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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† Includes drug resistant and susceptible cases of invasive *Streptococcus pneumoniae* disease among children <5 years and among all ages. Case definition: Isolation of *S. pneumoniae* from a normally sterile body site (e.g., blood or cerebrospinal fluid).

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 29, 2010, and May 30, 2009 (21st week)*

Reporting area	Varicella (chickenpox) [§]					West Nile virus disease [†]									
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Neuroinvasive					Nonneuroinvasive [¶]				
		Med	Max			Current week	Med	Max	Cum 2010	Cum 2009	Current week	Med	Max	Cum 2010	Cum 2009
United States	322	329	587	6,868	12,252	—	0	46	1	3	—	0	49	—	5
New England	—	17	36	289	484	—	0	0	—	—	—	0	0	—	—
Connecticut	—	7	20	119	242	—	0	0	—	—	—	0	0	—	—
Maine [§]	—	4	15	96	80	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	2	—	4	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	3	10	54	96	—	0	0	—	—	—	0	0	—	—
Rhode Island [§]	—	0	12	8	18	—	0	0	—	—	—	0	0	—	—
Vermont [§]	—	1	10	12	44	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	28	32	69	704	1,123	—	0	2	—	—	—	0	1	—	—
New Jersey	—	8	28	232	232	—	0	1	—	—	—	0	0	—	—
New York (Upstate)	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
New York City	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
Pennsylvania	28	22	53	472	891	—	0	0	—	—	—	0	0	—	—
E.N. Central	65	107	193	2,459	3,877	—	0	4	—	—	—	0	3	—	—
Illinois	—	26	49	628	966	—	0	3	—	—	—	0	0	—	—
Indiana [§]	—	6	35	236	291	—	0	1	—	—	—	0	1	—	—
Michigan	19	35	84	805	1,107	—	0	1	—	—	—	0	0	—	—
Ohio	46	28	58	721	1,231	—	0	0	—	—	—	0	2	—	—
Wisconsin	—	6	57	69	282	—	0	1	—	—	—	0	0	—	—
W.N. Central	4	12	40	258	823	—	0	5	—	—	—	0	11	—	1
Iowa	N	0	0	N	N	—	0	0	—	—	—	0	1	—	—
Kansas [§]	—	4	18	90	364	—	0	1	—	—	—	0	2	—	—
Minnesota	—	0	0	—	—	—	0	1	—	—	—	0	1	—	—
Missouri	4	6	16	143	389	—	0	2	—	—	—	0	1	—	—
Nebraska [§]	N	0	0	N	N	—	0	2	—	—	—	0	6	—	—
North Dakota	—	0	26	23	38	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	7	2	32	—	0	3	—	—	—	0	2	—	1
S. Atlantic	61	36	94	1,045	1,515	—	0	4	—	—	—	0	2	—	—
Delaware [§]	—	0	3	11	4	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	4	7	21	—	0	1	—	—	—	0	0	—	—
Florida [§]	48	15	57	581	781	—	0	1	—	—	—	0	1	—	—
Georgia	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
Maryland [§]	N	0	0	N	N	—	0	0	—	—	—	0	1	—	—
North Carolina	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
South Carolina [§]	—	0	34	68	88	—	0	2	—	—	—	0	0	—	—
Virginia [§]	—	10	34	162	401	—	0	2	—	—	—	0	0	—	—
West Virginia	13	8	26	216	220	—	0	0	—	—	—	0	0	—	—
E.S. Central	7	6	28	143	323	—	0	6	1	—	—	0	4	—	—
Alabama [§]	7	6	27	142	320	—	0	0	—	—	—	0	0	—	—
Kentucky	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
Mississippi	—	0	1	1	3	—	0	5	1	—	—	0	4	—	—
Tennessee [§]	N	0	0	N	N	—	0	2	—	—	—	0	1	—	—
W.S. Central	148	70	285	1,403	2,860	—	0	19	—	2	—	0	6	—	1
Arkansas [§]	—	4	50	69	339	—	0	1	—	1	—	0	0	—	—
Louisiana	—	2	8	25	60	—	0	2	—	—	—	0	4	—	—
Oklahoma	N	0	0	N	N	—	0	2	—	—	—	0	2	—	—
Texas [§]	148	61	272	1,309	2,461	—	0	16	—	1	—	0	4	—	1
Mountain	9	25	48	551	1,181	—	0	12	—	—	—	0	17	—	3
Arizona	—	0	0	—	—	—	0	4	—	—	—	0	2	—	—
Colorado [§]	—	11	41	211	637	—	0	7	—	—	—	0	14	—	1
Idaho [§]	N	0	0	N	N	—	0	3	—	—	—	0	5	—	—
Montana [§]	6	3	17	104	101	—	0	1	—	—	—	0	1	—	—
Nevada [§]	N	0	0	N	N	—	0	2	—	—	—	0	1	—	—
New Mexico [§]	—	1	7	49	81	—	0	2	—	—	—	0	1	—	—
Utah	3	7	22	177	362	—	0	1	—	—	—	0	0	—	1
Wyoming [§]	—	0	3	10	—	—	0	1	—	—	—	0	2	—	1
Pacific	—	1	5	16	66	—	0	12	—	1	—	0	12	—	—
Alaska	—	0	4	16	37	—	0	0	—	—	—	0	0	—	—
California	—	0	0	—	—	—	0	8	—	1	—	0	6	—	—
Hawaii	—	0	2	—	29	—	0	0	—	—	—	0	0	—	—
Oregon	N	0	0	N	N	—	0	1	—	—	—	0	4	—	—
Washington	N	0	0	N	N	—	0	6	—	—	—	0	3	—	—
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	2	8	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	6	30	101	260	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

* Incidence data for reporting years 2009 and 2010 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly.

† Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for California serogroup, eastern equine, Powassan, St. Louis, and western equine diseases are available in Table I.

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

¶ Not reportable in all states. Data from states where the condition is not reportable are excluded from this table, except starting in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at <http://www.cdc.gov/ncphi/diss/nndss/phs/infdis.htm>.

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